REPORT RESUMES

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WORKSHOP FOR THE PREPARATION OF HOME ECONOMICS TEACHERS TO TEACH WAGE EARNING PROGRAMS IN FOOD SERVICE.

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A SUMMER WORKSHOP WAS CONDUCTED IN 1965 TO PREPARE HOME ECONOMICS TEACHERS TO CONDUCT TRAINING PROGRAMS IN THE FOOD SERVICE AREA TO (1) PREPARE OLDER HIGH SCHOOL AND POST-HIGH SCHOOL YOUTH TO BECOME COOKS FOR NURSING HOMES, DAY CARE CENTERS, HOMES FOR CHILDREN, AND SCHOOL LUNCH PROGRAMS AND (2) DEVELOP CURRICULUM MATERIALS IN THE FOOD SERVICE AREA. THE WORKSHOP ACTIVITIES INCLUDED LECTURES, DEMONSTRATIONS, AND FIELD TRIPS. LITERATURE WAS REVIEWED IN THE AREAS OF (1) BASIC SKILLS IN THE MANAGEMENT OF WORK, PREPARATION AND SERVING OF FOOD, CARE AND USE OF EQUIPMENT, AND ORIENTATION TO EMPLOYMENT, (2) KNOWLEDGE OF GOVERNMENT SERVICES AND LAWS FOR PROTECTION OF EMPLOYEES, AND (3) PLANNING NEEDED TO PREPARE TRAINEES IN FOOD SERVICE. A MANUAL WAS WRITTEN WHICH INCLUDES (1) THE STEPS IN ORGANIZING A WAGE EARNING PROGRAM, (2) LESSONS ON FOOD SERVICE OCCUPATIONS, AND (3) A SUGGESTED TRAINING PROGRAM. THE MANUAL IS INTENDED TO PROVIDE HOME ECONOMICS TEACHERS WITH INCREASED INCENTIVE AND THE BACKGROUND NECESSARY FOR INITIATING A PROGRAM IN HOME ECONOMICS FOR WAGE EARNERS. (AL)

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WORKSHOP FOR THE PREPARATION OF HOME ECONOMICS TEACHERS TO TEACH WAGE EARNING PROGRAMS IN FOOD SERVICE

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INTRODUCING THE BULLETIN

This bulletin, compiled by the Department of Home Economics Education of Southern Illinois University and the 1965 graduate workshop participants in home economics wage earning, is presented to educators throughout the country to help in the planning and developing of wage earning programs. The materials presented are developed to include recommendations set up by the State of Illinois to fulfill the requirements of the Vocational Education Act of 1963 and preceding vocational education acts.

Vocational Education Acts and Their Significance[1]

1. Morrill Act of 1862 - the first grant of federal aid for vocational education. The Act provided for the establishment in each state of agricultural and mechanical colleges, referred to as "Land Grant" schools.
2. Smith-Hughes Act of 1917 - made available to the states federal funds for vocational education. Funds were allotted annually for promotion of vocational education in agriculture, trade and industrial education, and home economics.
3. George-Deen Act of 1936 - appropriated $14 million for vocational education. Changes were made by this act in fiscal distributions for home economics and agriculture education. The need in distributive occupations was recognized and appropriations were made.
4. George-Barden Act of 1946 (an amendment of the George-Deen Act) - increased appropriations which were to be expended in the same manner as the Smith-Hughes Act. Amendments were also made in 1956 and 1958.
5. Area Redevelopment Act of 1961 - recognizes the need for vocational training of unemployed and underemployed in economically depressed areas.
6. Manpower Development and Training Act of 1962 - appropriated money for training and skill development, a portion of which is to be used for training costs.

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[1] Mobley, M. D., "A Review of Federal Vocational-Education Legislation 1862-1963," Theory into Practice, Vol. 3, No. 5, Columbus, Ohio: Ohio State University, pp. 167-170.

7. Vocational Education Act of 1963 - "authorizes a permanent program of Federal assistance for vocational education amounting to $108.5 million for fiscal year 1965; $177.5 million for fiscal year 1966; and $225 million for subsequent fiscal years. These authorizations are in addition to $57 million appropriated annually under existing laws. In addition, authorizations have been made for residential schools and work-study programs . . .

   The new funds . . . may be expended for vocational-education programs to prepare people for employment in any occupational field not requiring a baccalaureate degree. The program may be conducted in comprehensive or specialized high schools, area vocational schools, junior and community colleges or universities that offer terminal vocational programs . . .

   In addition to preparation for homemaking, home economics funds will be directed toward the homemaking skills that hold employment opportunities. A minimum of 10 per cent of the home economics funds, under provisions of the Smith-Hughes and George-Barden Acts, must be used for job-oriented training."

Six implications for the further developing and improving of vocational education from the Vocational Education Act of 1963 are suggested by Theory Into Practice.[2]

1. "Congress is determined to have vocational-education programs in the future geared more closely to labor-market demands than they have been in the past.
2. The Act provides for training in all types of occupations except those professional occupations requiring a baccalaureate degree.
3. The programs are to be designed for people of all levels of ability - from the least able to the most able.
4. Vocational education will be developed in all kinds of institutions - comprehensive high schools, specialized vocational high schools, area vocational-technical schools and institutes, junior colleges, community colleges and four-year colleges and universities.
5. The new law provides for evaluation of the program at least every five years.
6. Attention is being given to research and demonstration programs."

These acts were included in shortened form so that you might better understand the purpose of this bulletin. Any specific information concerning these acts should be requested from the individual state vocational education departments, since the recommendations vary in accordance with interpretations and state situations.

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[2] Mobley, Op. Cit., pp. 169-170.

The information presented is especially developed for establishing training programs of home economics related occupations for boys and girls in the eleventh and twelth grades. The purpose of the materials is to assist teachers to prepare the students with wage-earning skills to be applied to occupations which utilize home economics related knowledge and skills. This information may be adapted for use in junior college, area vocational schools and adult classes in wage-earning.

Prime consideration have been placed on one occupation, that of the supervised food service worker. Specific suggestions are also included for the hotel and motel housekeeping aide. Although only two of the subject matter recommendations are included, much of the materials presented is generalized for the adaptation to other programs.

Steps in initiating and developing an effective wage-earning program are:

I. Organizing an Advisory Committee
II. Securing Information on Employment Opportunities
III. Developing a Job Analysis
IV. Planning Job Placement, Evaluation and Follow-Up
V. Determining the Qualifications of Trainees
VI. Reviewing the Qualifications of Wage-Earning Teachers

Part I of this bulletin introduces the steps in organizing a wage-earning program. Part II includes a series of lessons in the food service occupations for a non-cooperative program in home economics wage-earning. They are particularly developed for the Cook's

Helper II classification. These lessons include information sheets of principles in the form of generalizations regarding the particular foods and techniques used and procedure sheets for over 70 work experiences planned as sample lessons to give the student an opportunity to gain skill in relation to the food principles. Also included are one example of a cost sheet for each major area, suggested test questions and evaluation sheets in the form of a rating scale for the student's work and score cards for the products. The work experiences have been chosen to give practical experiences in most of the types of food service techniques commonly expected of a cook's helper in a small restaurant, nursing home, day nurser or similar types of places. Part III is a presentation of a suggested program for the training of youth as housekeeping aides for hotels, motels, homes and other public buildings.

Thus, this bulletin presents what the many persons, who have helped to make the manual possible, hope will provide increased incentive and the necessary background for initiating and developing a wage-earning program in home economics.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education
Division of Adult and Vocational Research

Vocational Education Act of 1963
(P.L. 88-210, Sec. 4(c)

PROJECT SUMMARY -ERD-400-65 5-0015
Contract No. OE-5-85-136

TITLE: Workshop for The Preparation of Home Economics Teachers to Teach Wage-Earning Programs in Food Service

PRINCIPAL INVESTIGATOR: Dr. Anna Carol Fults, Professor and Chairman
Department of Home Economics Education

INSTITUTION: Southern Illinois University, Carbondale, Illinois

FEDERAL FUNDS REQUESTED: $6,192

DURATION: *Beginning, June 15, 1965 Ending, September 30, 1965

Objectives:
1. To prepare home economics teachers to conduct training programs in the food service area to prepare older high school, and post-high school youth to become cooks for nursing homes, day care centers, homes for children, and school lunch programs.
2. To develop curriculum materials in the food service area.

Procedures: The content of the workshop will include lectures, demonstrations, field trips, discussions, and study of the literature in the field. The literature study will cover basic skills in the management of work and in the preparation and service of food; care and use of equipment and handling; orientation to employment; government services and laws for protection of employees; and planning for offering a program to prepare trainees in the food service area. Curriculum materials will be developed through large and small group work with the help of the workshop leaders and consultants. These materials will be evaluated by the teachers who will use them during the following year.

*Confirmation of letter contract dated June 15, 1965

Chapter 1

SECURING ADMINISTRATIVE AND STATE APPROVAL AND SETTING UP AN ADVISORY COMMITTEE

A. Kinds of Advisory Committees

The Vocational Education Act of 1963 embodies the philosophy that all our citizens should have access to education and training that is of high quality and realistic in terms of opportunities for gainful employment. This opportunity should be available to all, from the least able and the disadvantaged to those of a high level of technical ability. Before any program of cooperative work experience is started in a school system, all persons involved must have a complete understanding of how the program operates. Included in this group are the school board members, the superintendent, the principal and the teachers who may be directly involved.[1]

In establishing and operating a work experience program, a great number of responsibilities exist for its success. Many persons will be involved and interested. The scope of the responsibilities at this stage of organizing the program rest upon the board of education, the superintendent, and the principal.

1. Board of Education - The board of education should have responsibility in the broad planning of this program. Its members should understand the general operation, objectives and results of the program and the curriculum.[2]
2. Administrator - No administrator would care to seek the support of his community for a program that is not needed. Hence, he will first study carefully the work requirements of his community, the degree of success with which the school is graduating students to fulfill these requirements, the demand for

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[1] Wilson H. Ivins and William B. Runge, Work Experience in High School, (New York: The Ronald Press Co., 1965), p. 164.

[2] Ibid., p. 167.

work training by students in the school, and other evidence of need. Some of the specific things he can do to carry on this study will include (1) interview businesses, (2) investigate the present work status of previous graduates of the school, and (3) interview or poll school students, parents, and interested organizations.[3] If this survey of community and student population makes clear the need for school work training, the administrator will then be ready to take the second step of fitting the work program into the total program. In order to do this he must consider the present nature of the curriculum. The board of education, and ultimately the community at large, will authorize or make possible the work program. Thus, the administrator will next wish to explain the program, cite evidence of need for it in the school, and show at least in outline how it can be fitted into the present curriculum.[4]

3. Types of Work Program - To decide upon the type or types of work programs to be established is the next step. Also, the need for cooperative action and decision will be even more apparent here than in the preceding steps. Probably all the personnel who have been mentioned will be able to make their contributions. Almost certainly, a much more scrupulous and detailed study of curriculum and community than that already mentioned will be necessary. Not only the needs of the community and students, but also the natural situation, the material and human resources, the physical facilities and other aspects of school and community will necessarily be analyzed before a sound decision can be reached.[5]
4. Budget for the Program - This should be carefully considered at the onset of the program and some general policies should be established. Should a budget be set up? Should the coordinator purchase a number of books, machines, equipment and similar items of cost before exact needs are determined? What should be done about a classroom and the fixtures for it? Local conditions should determine some of these answers. If budget procedures are used, the work experience program should be given enough money to operate adequately.[6]
5. Selection of a Coordinator - The success of the program depends upon proper selection of a coordinator; this will probably be the most important step the school administrator should take in the establishment of a work experience program. This cannot be emphasized too strongly. If a properly qualified person is not employed, the program will be doomed to failure from the start.[7]
6. Duties of the Coordinator - The coordinator should be assigned the general duty of establishing, operating and administering the cooperative work experience program.[8]

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[3] Ibid., p. 168. [4] Ibid. [5] Ibid., p. 170.

[6] Ibid., p. 171. [7] Ibid., p. 172.

[8] Ibid.

7. Personal Characteristics - A coordinator must possess a variety of traits. He should not be lazy or easily discouraged. Because this new type of school program must be explained and sold to a great number of people, the coordinator should possess the qualities of a salesman. He should like and get along well with people. His work will bring him in constant contact with other school personnel, students, parents and business and professional people. He should be the type of person whom everyone will like and respect.
8. Length of Employment - the length of time a coordinator should work during the year will depend on the local situation. Factors such as the total vocational program, guidance functions, summer school offerings, and other school personnel contacts will affect the work and duties of the coordinator.
9. Selecting Classroom, Fixtures, Equipment, and Instructional Materials - If it is possible at this time to find out from the coordinator what will be needed in the way of classroom and equipment, the school administrator should do so.[9]
10. Naming the Course - Selection of a proper course title is very important and sometimes means the difference between having a good and poor enrollment of students. The term home economics must appear in a home economics wage-earning course title.
11. A Record-Keeping System - A system and method of keeping track of students in the work experience program should be developed at the onset. The new factor being added to the school with this program is that of a student working on a job. This will involve giving credits for the work experience and necessitate some system of records to keep track of these work hours. Whichever system used should be as simple as possible and still take care of essential needs. In general, forms will be needed for keeping track of the student work experiences, coordination activities, placement procedures, classwork and a few extracurricular activities.[10]
12. Relationship with School Staff - The most significant thing a coordinator should guard against is being loaded up with a lot of extra activities and duties that rightfully belong to the principal, counselor or attendance officer.
13. Place of the Coordinator in the Guidance Program - Most schools now have some form of guidance work. The coordinator should find out where he can help; he should help guide students just as should any other classroom teacher or member of the school staff. He may perform any or all of the functions listed as vocational guidance. These are to help the individual select, prepare for, enter upon, and progress in an occupation. A coordinator should counsel with students in order to find the ones best fitted for, and those who can benefit most from taking, the cooperative work experience class.[11]
14. Scheduling the Classes - In establishing a vocational or related class for students in the work experience program, several factors should be considered. These are total school

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[9] Ibid., p. 172. [10] Ibid., p. 183. [11] Ibid., p. 207.

program and schedule, the amount of time students will be needed in training stations, credits to be given, and time and schedule of the coordinator.[12]

15. Qualifications of Coordinators - The success of a program will depend to a great extent on the ability of the coordinator to carry on the techniques which are now accepted and being used in programs throughout the country. He must be a person full of vitality, leadership, initiative and endurance. Personal qualities should be developed which can overcome weaknesses or shortcomings in "paper" qualifications. In addition to the personal traits needed, a coordinator should have certain educational preparation and work experience in the occupation he is teaching students to enter. Most states now list five major areas of qualifications.[13]
    - Work experience - occupational
    - Work experience - teaching
    - Educational preparation - general
    - Educational preparation - technical
    - Educational preparation - professional

The national and state officials have set up advisory committees to help in the over-all planning of their programs. These committees have proved beneficial to their offices. It is with this in mind that the state officials are suggesting that the local vocational education teachers or superintendents of schools, at the direction of the local boards of education, serve as the catalyst in bringing together an advisory committee to assist in the planning of the programs on the local level.

A carefully chosen representative advisory committee is most important in a vocational education program and should be used by all coordinators of a wage-earning program. The advisory committee, well-chosen, and the meetings, carefully planned, can be of unlimited assistance to the coordinator in that it will give her a group of interested people to whom she may go for counsel and advice in the operation of the program. The coordinator will need:

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[12] Ibid., p. 193.

[13] Ibid., p. 199.

1. A General Advisory Committee, which will help plan the overall program from year to year.
2. Sub-Committees or Occupational (home economics related) Committees, which will help with the specific occupational areas being taught.

B. Purposes and Duties of a General Advisory Committee

1. Help determine the occupations for which training is needed.
2. Set up short-term and long-term goals for the program.
3. Recruit students that are in need of the training (with the help of the vocational guidance teacher, if there is one.)
4. Help keep the curriculum up to date as to the jobs available.
5. Provide jobs for the students.
6. Give legal advice.
7. Act as public relations people.
8. Help secure materials needed.
9. Give advice and encouragement to students.
10. Create good rapport between industry, business, and the vocational education program.
11. Make suggestions for sub- or occupational committees.
12. Make plans for the growth and expansion of the program.
13. Assist in securing permanent job placements for students.
14. Make suggestions for other types of programs needed in the community.
15. Assist in the evaluation of the program.
16. Help in finding suitable training stations.

C. Suggested Personnel of a General Advisory Committee

1. School officials (may prefer to act as ex-officio members).
2. Business and professional people.
3. Industrial employers and employees.
4. Labor and management representatives.
5. Health and welfare representatives.
6. Chamber of Commerce representative.
7. Local employment office personnel (These representatives may prefer to serve as resource persons.)
8. Lay person.
9. Civic and church representatives.
10. Homemaker.
11. Home economist.

Method of Appointment - It is the duty of the vocational coordinator or other vocational education teachers, after approval by the school administrators, to contact each person they would like to have on the advisory committee. The names of those who consent to serve will be given to the superintendent or his representative.

These persons should then be officially invited to the first scheduled meeting by letter from the superintendent's office. This letter should be sent at least three weeks prior to the first meeting date. New appointments will be made each year to replace the retiring committee members. This means of appointment will give continuity to the committee, since some members who are familiar with the function of the committee will be left each year to work with the new members.

Organization Within the Committee - The chairman should be selected by vote of the committee, and the vocational education coordinator or some other vocational education representative should serve as secretary. It should be kept in mind that this committee is purely advisory, not statutory, in nature, and has no administrative or other type of function.

D. Purposes and Duties of a Sub- or Occupational Committee

1. Help plan the program based on the needs of the occupation for which the students are being trained.
2. Help secure job placements.
3. Act as public relations persons.
4. Assist teachers in making some decisions such as an acceptable wage to be paid a student-learner working at a place where minimum wage law does not apply.
5. Help students develop favorable attitudes toward jobs.
6. Create good rapport between students and employers.
7. Assist in maintaining high standards.
8. Recommend and help secure necessary facilities, materials and supplies.
9. Help find suitable training stations for the occupations to be taught.
10. Help make and check schedules to be followed by student-learners.
11. Approve entrance requirements and assist in selecting students for an occupation.
12. Help prepare and select instructional materials for occupations.
13. Help evaluate the program.
14. Help seek funds if a need develops.

E. Suggested Personnel for Sub- or Occupational Committee

There could be some of the same people that are on the general advisory committee on the sub- or occupational committees. Basically, however, the people on the sub-committee will be those persons who are specifically interested in or related to the occupations being taught at the time.

1. Employers and employees of the particular related field.
2. Parents and students.
3. Welfare representative.
4. Employment office representative (This person may prefer to serve as a resource person only).
5. Home economist.

Method of Appointment - The persons to serve on an occupational or sub-committee should be contacted in the same manner as the members of the general advisory committee. They may serve as long as this specific occupation is being taught.

Organization Within the Committee - The chairman may be elected by the committee; there may be a co-chairman and a secretary. The coordinator may serve as the co-chairman. Depending on the preference of the coordinator, these offices may be rotated.

F. Qualities Desirable for Advisory Committee Members

1. Empathy with people of different backgrounds.
2. Interest in youth, learning and the community.
3. Ability to work with others.
4. Willingness to give time to the program.
5. Open mind.

G. Points for a Successful Committee Meeting

1. Have a well defined agenda (Give copy to each committee member).
2. Maintain a definite time for meetings (Adhere to this closely).
3. Luncheon meetings are good time savers.
4. Discuss business quickly and thoroughly.
5. Set definite time and place for next meeting.
6. Remind by telephone the day before the next meeting.
7. Know your committee.
8. Help each member to feel a part of the committee.

H. Things to Beware of in Meetings

1. Discord among committeemen.
2. Getting off the point of the meeting.
3. Members not feeling at ease.
4. Committee out of balance.
5. One or two persons dominating the discussions.
6. Meetings too long.
7. Meeting just before mealtime.
8. All members not participating.
9. Meeting not well planned.

I. First General Advisory Committee Meeting

It is important for the first general advisory committee meeting to be well planned, move directly to the point, and run smoothly, without any loss of time.

The coordinator should act as the chairman and explain the vocational education program and the purposes of an advisory committee. The committee should be organized at this meeting. Copies of the minutes of this meeting should be sent to all the members of the committee.

J. Points on the Agenda for the First General Advisory Committee Meeting

1. The reason for this type of program.
2. Purpose of an advisory committee.
3. Occupational needs of the community.
4. Training agencies being considered.
5. Suggestions of other training agencies.
6. Explanation of high school schedule.
7. Duties of the coordinator and the vocational requirements.
8. Suggestions that will help promote the program.
9. Election of officers.
10. Outline of a tentative program.
11. Election of committees to contact prospective training agencies.
12. Means of selecting the student-learners.
13. Transportation, facilities, and materials.

K. Duties of the Vocational Education Coordinator

1. Provide the educational theory and practical experiences for the training program.
2. Orient the superintendent, school board, principal, faculty, counselors, parents, employers, students and community to the program.

3. Secure materials for the program.
4. Help the committee members to know each other.
5. Give public recognition to committee members, whenever possible.

The coordinator and all the vocational education teachers involved in the program are supersalesmen on the highest level, because they are selling an intangible - an idea, a positive approach to keep young Mr. and Miss America in school and provide them with a marketable skill upon high school graduation.

Chapter II

SECURING INFORMATION ON EMPLOYMENT OPPORTUNITIES

Information on opportunities for employment should be secured in order to determine the needed training in initiating and developing a successful wage-earning program. Information concerning opportunities for employment should be collected and analyzed from all available sources so that a more effective plan may be organized. The following sources with their informative contributions are suggested for securing materials.

1. Bureau of Census - progressive or recessive trends within various occupations and specializations.
2. State Employment Service - supply and demand of workers, hourly wage ranges, job descriptions; guidance and testing service.
3. Chamber of Commerce - community employment, methods of securing information.
4. Private employment agencies - employers' stated listing for employees in the various occupations.
5. Local industries and specific occupational sources - community opportunities; job openings, qualifications, responsibilities, wages, benefits, and opportunities.

The foregoing include some of the resources available for reviewing the occupational situation; surveying techniques available to the educator would be questionnaires and interviews. Some prerequisites of a successful survey, either questionnaire or interview, were adapted from the Information Service in Guidance.

1. Clearly state objectives.
2. Delimited problem area.
3. Budget proportionate to expenses.
4. Adequately trained personnel.
5. Community cooperation and effective public relations.
6. Sufficient time.
7. Accurate and complete data.
8. Practical application of findings.

SURVEY CHECK LIST[1]

The following steps will serve as a check list for the survey planner. They may be modified to suit local situations.

_____ 1. Determine the need, feasibility and chief purposes of an occupational survey of the community.

_____ 2. Obtain as sponsors one or more significant community agencies.

_____ 3. Organize an advisory committee which is representative of the community and outside agencies concerned.

_____ 4. Prepare a budget of estimated expenditures and arrange for financial support.

_____ 5. Appoint a qualified person to serve as survey director and provide him with necessary facilities, clerical help, etc.

_____ 6. Appoint the necessary sub-committees and assign their duties. The following are typical of the duties of such committees for surveying.
    _____ a. Conduct preliminary research on occupational data already available and survey methods and reports of other communities.
    _____ b. Plan and carry on a continuous public relations campaign during the survey.
    _____ c. Determine the scope and method of the survey - the geographic areas; the age, sex, race, and occupational groups to be covered; the extent and nature of the data to be obtained, and the method of securing the data.
    _____ d. Develop the necessary forms - letter, instruction sheets, questionnaires, maps, tabulation forms, etc.; and try them out.
    _____ e. Select and train the interviewers thoroughly.

_____ 7. Hold a final meeting of sponsors and workers to afford an opportunity for discussing plans, giving last-minute instructions, asking questions, coordinating publicity, etc.

_____ 8. Begin the actual survey and complete the assignments as quickly as possible, without detering the results.

_____ 9. Check the returned questionnaires and arrange an early follow-up of incomplete or missing reports.

_____10. Tabulate the data after editing and coding the returns.

_____11. Study the findings; prepare and present the final report and recommendations to the community.

_____ 12. Develop a planned program for carrying out the recommendations by the community agencies and others involved.

_____ 13. Review and keep a permanent record of the activities connected with the planning and conducting of the survey.

_____ 14. Provide for supplementary surveys if such are needed to secure information of a more specialized nature.

_____ 15. Consider means of bringing the survey information up-to-date periodically.

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[1] Norris, Willa, Zeran, Franklin R., and Hatch, Raymond N., The Information Service in Guidance. Chicago: Rand McNally and Company, 1960, p. 268.

A SURVEY LETTER[2]

Dear Mr. Employer:

A wage-earning program for high school students will soon be started in the area. The aim will be to train and prepare youth for jobs in which they could reasonably expect to find employment in your community and the surrounding area.

In planning the expanded vocational classes (in addition to those now offered), only you, as an employer, can be consulted with confidence to assure that the time, money and effort going into this program is expended in the right direction. Basically, we need your estimates and opinions on two short questions:

1. Provided that high school level vocational training were available, what occupations within your firm would benefit by such training?

   ______________________ ______________________

   ______________________ ______________________

2. If youth trained in the above occupations were available (between the ages of 16 and 19), how many in each occupation do you anticipate that you would hire within the next year due to normal turnover, expansion, etc.?

OCCUPATION	NUMBER	SEX
______________________	________	_____
______________________	________	_____
______________________	________	_____
______________________	________	_____

(Please use the reverse side for additional occupations and comments.)

It is not necessary to sign this form since no commitment is involved. Simply complete the questions with your most accurate estimates, and return this letter in the enclosed self-addressed envelope.

Sincerely,

________________ Vocational Education Coordinator

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[2] Adapted from a form of the Illinois State Employment Service, Murphysboro Office, Murphysboro, Illinois.

LETTER OF RECOMMENDATION FOR INTERVIEWER[3]

To: The business men of ______________________________
Re: Job opportunity survey

The Chamber of Commerce and the public school are attempting to discover opportunities in (city, town, or country) for the employment of young people. In order to get this information, representatives of the schools, in cooperation with the Chamber of Commerce, are planning to conduct a job opportunity survey. Every employer in the city will be contacted within a few days for the purpose of securing the information that is suggested by the following questions.

1. What workers do you employ presently?
2. How many have you hired during the past twelve months?
3. What is the minimum age at which you accept employees?
4. Do you prefer male or female workers?
5. Is experience required of a beginner?
6. What are the minimum educational requirements of workers hired?
7. What workers do you have difficulty in securing?
8. What business machines, if any, do you use?
9. What qualifications are recommended?
10. What training of prospective employees would be beneficial to the company?

The persons who come to interview you will be students from one of the high schools in the city. They will ask no questions about wages or rates of pay, but will confine themselves entirely to such questions as those listed above.

We shall appreciate your cooperation in this project. We trust that you will extend to the young people who call upon you the courtesy of answering their questions. This survey will be of vital value to the educational system and to the industrial, professional, and the business life of ____________. The greatest value will come to the young people themselves in helping them to prepare for work in the community.

Very sincerely yours,

____
(Signature)

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[3] Adapted from Norris, Willa, Zeran, Franklin R., and Hatch, Raymond N. The Information Service in Guidance, Chicago: Rand McNally and Company, 1960, p. 278.

A suggested form for an occupational survey in homemaker service areas appears in the Illinois Teacher.[4] It contains fourteen areas of possible homemaker services which are checked in the response columns, "Needed this service last year," "Know people who needed this service," or "Believe trained persons would be employed." This form could be adapted for individual community needs.

Employment opportunities should be reviewed before a program of wage earning training is begun, in order to find the needs of the community--where the demand may be for workers if trained persons were available. It is best to have first secured the general advisory committee in order to have assistance in surveying. After the need is established and a program is decided upon, sub- or occupational committees may be organized. The third major step, as reviewed in the next chapter, is the analysis of the jobs that students will be trained in.

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[4] Bentley, Alma. "Fact Finding Needed for Program Planning in Training For Occupations Related to Home Economics," Illinois Teacher, Vol. VIII, No. 6, 1964-65.

Chapter III

DEVELOPING A JOB ANALYSIS AS PREPARATION FOR INSTRUCTION

Education in general, because of its reliance on book content, tends to lag behind in keeping informed of conditions in the world outside of school. Through the analysis technique, education has a better opportunity to keep abreast of new developments. Any occupation that involves fundamental procedures may be analyzed for instructional purposes. The instructor of a wage-earning course will find an analysis of the job to be taught very helpful in determining the course of study--the teacher who has analyzed the job has identified the daily lessons. The first major effort toward planning for a demonstration or for writing instruction sheets should be the identification by analysis of the instructional units involved. Analysis, therefore, should come first in the planning sequence of a training program for wage earning.

Definition of Terms

Due to the prevailing general confusion related to job analysis, it was felt advisable to include the following descriptions of terms.

1. Job - any type of work or undertaking either mental or manual, having a specific set of duties, responsibilities, and conditions, different from those of other work assignments.
2. Job Title - a distinctive designative term for a particular occupation.
3. Job Analysis - a careful study of each job to find out:
    a. what the job includes
    b. what the job holder does
    c. how the job is done
    d. under what conditions the job is performed
    e. what special qualifications the job holder must have

4. Job Definition - paragraph which states in abbreviated form the content of the job which will be of assistance in understanding the nature of the job. This may have to be delayed until the analysis is completed.[1]
5. Job Description - the name given to the written and specifically organized summary of significant findings from the job analysis.[2]
6. Job Specification - a job description to which has been added the skill, effort, responsibility and working conditions necessary to the fulfillment of tha work assignment.[3]

Procedure for Analyzing the Job

The first step in making the job analysis is to identify the job by its title and definition if one exists. (However, if none exists, a job definition may need to be prepared when the job analysis is completed.) The nine occupations using home economics knowledge and skills have been given specific titles and have been defined by the U.S. Office of Education. Howerer, there are divisions within these larger groupings which need further breakdown. For example, there are many different classifications of food service workers, but the broad definition assigned by the U.S. Office of Education does not list the specific duties of the particular divisions. In circumstances such as these when then the specific title or definition is not known, the Dictionary of Occupational Titles may be helpful. The dictionary defines 17,452 separate jobs. These are also known by 12,292 alternate titles, making a total of 29,744 definition of titles. Reasons of economy, practicability and efficiency make it impossible to cover all the occupations in the United States.

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[1] Patton and Littlefield, Op. Cit., p. 54.
[2] Ireson and Grant, Op. Cit., p. 208.
[3] Patton and Littlefield, Op. Cit., p. 53.

Each definition in the dictionary includes an industrial designation indicating the industry or industries in which the job is found. The several sections that make up the book are:

1. A description of the details of the definition and title make-up and of the occupational code structure
2. Directions for the use of the book
3. The body proper of the book, including the alphabetical listing of the jobs with their definitions
4. A glossary, listing alphabetically definitions of technical terms and names of machines and equipment used in the definitions
5. An alphabetical list of common commodities sold in retail and wholesale trade together with the titles under which their vendors are classified
6. Definitions for the industries included in the book, plus an alphabetical listing of the defined jobs found in each.

The data regarding jobs is usually obtained by review of literature, questionnaire, interview, observation or some combination of these surveying methods. The following few pages illustrate outlines that might be used as guides for making a general analysis of a particular job. These could be adapted to form a questionnaire or interview schedule.

An Outline for Analyzing a Job

I. Title
  A. DOT Title
  B. DOT Code Number
  C. Job Definition

II. Duties
  A. Regular or daily duties
  B. Periodic duties (weekly, monthly, etc.)
  C. Occasional duties (at irregular intervals)

III. Minimum Starting Requirements for Position
  A. Education
    1. Read, write and speak English
    2. Elementary school - 8 grades
    3. 1 - 2 years high school
    4. 3 - 4 years high school
    5. High school and some special training
    6. Partial college, 1 - 2 years

- B. Special Training
  - 1. Necessary pre-job training
  - 2. Amount of on-the-job training
  - 3. Additional training recommended for advancement
- C. Experience
  - 1. Minimum necessary to enter occupation
  - 2. Related experience in other occupations
  - 3. Experience desirable for entrance
    - a. Type
    - b. Amount
- D. Personal Qualifications
  - 1. Age range
  - 2. Sex
  - 3. Physical size and strength desired
  - 4. Special skills essential to performance on the job
  - 5. Special social and personal qualities, necessary for success in the particular job
- E. Other
  - 1. License
  - 2. Union membership
  - 3. Certificate, such as health
  - 4. Civil service examination
  - 5. Minimum score on standardized test

IV. Methods of entering
- A. Public and special employment services
- B. Apprenticeship
- C. Other methods and channels

V. Equipment and Materials Used
- A. List of equipment and materials used
- B. Probability of damage to equipment
- C. Safety precautions
- D. Equipment to be supplied by the worker

VI. Responsibility of the Worker
- A. Safety of others
- B. Supervising work of others
- C. Amount of independent judgment required

VII. Extent to Which Work is Supervised
- A. Amount and frequency
- B. Person to whom the worker is immediately responsible

VIII. Working Conditions
- A. Hours
  - 1. Regular hours
  - 2. Frequency of overtime

3. Vacations with or without pay
4. Regulations
   a. Local, state, federal
   b. Union

B. Regularity of employment
C. Health and accident hazards
   1. Special hazards, e.g., heavy lifting, dangerous chemicals
   2. Mental health hazards, e.g., pressure

D. Physical effort, e.g., amount of time spent standing, walking, sitting, lifting
E. Physical conditions of surroundings, e.g., air conditioning, noise
F. Contact with others
   1. Alone most of the time
   2. With workers of own level or with supervisor
   3. With the public

IX. Advancement
  A. Lines of promotion
  B. Opportunity for advancement
  C. Related occupations
     1. Occupations to which the jobs may lead
     2. Occupations from which one may transfer

X. Earnings
  A. Basis for pay
     1. Amount of payment determined by hour, piecework, day, week or month
     2. Frequency of payment, e.g., week,month

  B. Average pay for a beginner
  C. Average pay for a highly skilled worker
  D. Benefits
     1. Pensions
     2. Social security
     3. Unemployment insurance
     4. Sick leave
     5. Workmen's compensation

  E. Rewards and satisfactions in addition to monetary rewards

An Outline for Analyzing a Job[4]

Conditions Within the Occupation

What are the duties one performs in the occupations?
What are the divisions or separate fields in the occupation?
What is the job in which one usually begins?
What are the steps through which one advances to higher positions?
What are the hours of work?
Is the work seasonal? If so, which are the busy months? Which the slack?

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[4] Harry Dexter Kitson. *I Find my Vocation.*

Are there any particularly unhealthful features about the work?
Are there any unethical features?
How many persons are engaged in the work?
Is the occupation overcrowded?
Is it likely to grow?
Is it unionized?
What is the best way to get a job in this field?

Requirements of the Occupation

How old must one be in order to enter the occupation?
Are there any special requirements as to height, weight, strength, etc.?
Are there any particular senses used extensively?
What personal traits are most often mentioned in connection with the occupation?
Is the activity involved chiefly mental or physical?
Does it require more than average intelligence?
Is it predominantly social--that is, does it require one to deal largely with people? If so, with what class of people?
How much general education is necessary?
What kind of special training is needed?
How long a time is required for special training?
Where can special training be obtained? How much is obtained in educational institutions? How much on the job?
What will be the cost of preparation to fulfill requirements?

Rewards Obtainable

On what basis is a worker paid in this occupation, e.g., piecework, day, week or month?
How much can one earn by overtime work?
Is a bonus paid?
How much is the average pay--on a beginner's job and at later stages of advancement?
How much might one expect to earn after ten years of service in the occupation?
Are there provisions for sick benefits, profit sharing, pension, workmen's compensation?
How much vacation is given with pay?
What are the chief rewards of a nonfinancial nature?

The Job Description

Job description forms vary considerably, but in almost all cases, some provision will be made for each of the following subdivisions of information:[5]

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[5] Patton and Littlefield, Loc. Cit., p. 72.

1. The heading - should include the job title, date of analysis, job number or code.
2. Job definition or summary - paragraph which states, in very abbreviated form the content of the job.
3. Duties performed - Each important duty is stated separately, following some logical arrangement.
4. Personal requirements or specifications - may be included as a final section of the job description proper, or it may be set up as a separate job specification form.

There are two general types of descriptions. Very often, combinations of the two types are used. These types are:

1. Prose (see pages 27 through 29 for an example)
2. Checklist (The outlines for analyzing a job on pages 22 through 25 could serve as a basis for writing a description of this type.)

Following is a list of key principles to be used in organizing and writing job description data.

1. Try to arrange descriptions of duties in some logical order. If there is a definite work cycle, duties may be described in chronological order, or more important duties may be listed first, then less important ones.
2. State separate duties clearly and concisely, and do not go into such detail that it becomes a motion analysis.
3. Begin each sentence with an active, functional verb, e.g., tests, performs, uses.
4. Use quantitative words where possible, e.g., what number? how far? how long?
5. Use specific rather than vague words where possible. Rather than saying a worker uses good "management," say that he "organizes work in relation to work space and within time limitations."
6. State duties as duties; postpone statements of qualifications until later. Say "practices accident prevention" rather than "should be able to work safely and prevent accidents."
7. Avoid generalizations. Rather than saying "cleans and straightens room," specify the exact activities performed. Avoid words such as "handles," "assists" and "prepares," unless further information is given which will make the meaning specific.
8. Where possible, determine or estimate the percentage of total time spent on each activity, and indicate whether duties are regular or occasional.
9. Limit use of the word "may" with regard to performance of certain duties; the use of "routine," "daily," "periodic" and "occasional," if well defined, will make the meaning more specific and clear.[6]

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[6] Patton and Littlefield, Op. Cit., p. 79.

Job Description and Specification
(Example of prose type)

JOB CODE: D.O.T. 2-27.01 through .12

JOB TITLE: Waiters and Waitresses

DEFINITION OR SUMMARY: Serve food to patrons in a quick and efficient manner, set tables with clean linen and silverware; remove dirty dishes to kitchen.

GENERAL DUTIES: Spend most of time taking guests' orders, serving food and beverages, making out checks, and sometimes, collecting payments. In small restaurants, may clear tables, carry soiled dishes to the kitchen, and clean equipment, in addition to serving food. May advise guests on the choice of wine or answer questions about how the food is prepared.

REQUIREMENTS: Must be able to do the simple arithmetic needed to add food checks and compute taxes. Should speak English reasonably well; in a few restaurants, knowledge of a foreign language is important. Should have a friendly manner, know how to put people at ease, and be neat in personal appearance. The ability to follow oral and written directions and the capacity to grasp and adjust to new and changing situations are important. Health certificates are often required to indicate freedom from communicable diseases. Manual dexterity and ability to work under pressure are desirable.

TOOLS AND EQUIPMENT: Trays, order pad, pencil, cleaning cloths, table appointments, containers of food and beverages, money, cash register, pieces of small equipment.

WORKING CONDITIONS: Work an average of 40 to 48 hours per week. Often work on split shifts; on duty for several hours during one meal, some time off, and then return to work during the next period of heavy activity. Scheduled hours may include work in the late evening and on holidays and week ends. Many restaurants are air conditioned, but other, particularly small ones, may have less desirable working conditions. Workers often spend long periods on their feet, and may be required to lift heavy trays and other objects.

SUPERVISION: In large restaurants, waiters and waitresses may be supervised by captains, hostesses, headwaiters, or headwaitresses, who greet guests and escort them to tables; in small eating places, they may work directly under the supervision of the owner or manager.

EDUCATION AND EXPERIENCE: At least 2 or 3 years of high school are preferred. Some restaurants hire inexperienced workers and give them on-the-job training; others hire only experienced personnel.

> Special courses for waiters and waitresses, such as those given by vocational schools and restaurant associations, are considered good preparation by most employers.[7]

Each operation step needs to be further analyzed and broken down to the point of precise movements. The extent to which the job trainer will break down the description depends upon the type of job and the person doing the training. "The tendency to forget demands that the instructer jot down the important details that are overlooked by himself as an accomplished operator, but that must be taught to the learner. The tendency is for the good performer to teach the pattern of his finished performance which is beyond the learner rather than the minute details which every beginner must attack before he can accomplish proficiency in his performance."[8]

Analysis should be complete and detailed and then reduced to its minimum essentials when constructing the teaching plan. (See page for a breakdown of the steps involved in making a bed.) Following is an example of a two column analysis. One column includes the operations; the other, the information topics. Although the columns appear side by side, the operation steps need not match the information topics one by one, since the information might be important for the performance of a number of steps. The columns may reflect each other but this would happen only by chance.[9]

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[7] U.S. Department of Labor, Occupational Outlook Handbook, Bureau of Labor Statistics, 1963-64, pp. 705-713.

[8] Vernon G. Schaefer, Job Instruction, New York: McGraw-Hill, 1943, p. 65.

[9] Verne C. Fryklund, Analysis Technique for Instructors, Milwaukee: The Bruce Publishing Company, 1956, p. 100.

Examples of a Two-Column Analysis

Operation: Cleaning the bathroom mirror.

Doing	Knowing
1. Assemble materials, if not previously done.	1. Type of cleaning solutions to use for each step.
2. Spray mirror with cleaning solution (or use other recommended procedure).	2. Technique of cleaning mirror, so as not to leave streaks or lint
3. Using both hands, wipe mirror surface with paper towels. a. Use overlapping motions to prevent streaking. b. Use up-and-down motions or side-to-side motions, depending upon the shape of the mirror.	3. Judgment in determining cleanness of mirror.
4. Polish mirror. a. Use a lint-free cloth. b. Repeat motions in Step 3.	4. Understanding of work simplification principles.
5. Check for spots, streaks, and smudges by visually inspecting from a 45° angle.	5. Location of supplies.
6. Repeat necessary steps, if the mirror is not cleaned satisfactorily.	6. Type of cleaning cloth to use for each step.
7. Return supplies to designated areas.	7. Understanding the importance of using separate cloths for cleaning and polishing.

Operation: Cleaning the medicine cabinet

Doing	Knowing
1. Assemble materials, if not previously done.	1. Type of cleaning and/or disinfectant solution to use for each step.
2. Remove and report any articles of value that might have been left in the cabinet by guests. Dispose of such articles as empty toothpaste tubes, used soap, and other articles of negligible value. a. Use safety precautions in handling such sharp articles as razor blades. b. Place articles of negligible value in waste basket or other designated area.	2. Understanding of work simplification principles.

3. Wipe interior of cabinet with dry or treated cloth to remove dust, powder or other small dry particles.

4. Wipe interior with cleaning and/or disinfectant solution, being certain to remove all soil.
   a. Begin with the top shelf and proceed downward.
   b. If shelves are glass, remove them and follow procedure outlined for cleaning a mirror.

5. Dry interior with clean lint-free cloth, paying particular attention to glass shelves.

6. Close cabinet door.

7. Clean mirror according to outlined procedure.

8. Wipe exterior of cabinet with cloth or cloths treated with cleaning and/or disinfectant solution.

9. Wipe chrome with clean cloth treated with specific solution.

10. Polish chrome with a dry, lint-free cloth.

11. Inspect cabinet for spots, streaks and smudges.

12. Repeat necessary steps, if cabinet is not cleaned satisfactorily.

13. Return supplies to designated area.

14. Restock cabinet with articles designated by the management, such as, sterilized glasses, bars of soap and toilet tissue.

3. Judgment in determining cleanness.

4. Judgment in designating between articles of value and those of negligible value.

5. Safety precautions.

6. Location of supplies.

7. Type of cleaning cloth to use for each step.

8. Management policies in restocking supplies.

The Job Specification

The job specification is usually based on the findings made in the job analysis and describes the requirements and qualifications of the person to do the job and the type of equipment and material that is best suited. The job description describes the job: the job specification describes the person who is to do it. The following list indicates some traits that might be required of a worker. Although not all of these characteristics would be required on every job to the same degree, a list of this type could be used as a check sheet for a specific job.

1. Work rapidly for long periods
2. Strength of hands, arms, legs, etc.
3. Dexterity of fingers
4. Dexterity of hands and arms
5. Dexterity of feet and legs
6. Eye-hand coordination
7. Foot-hand-eye coordination
8. Coordination of independent movements of both hands
9. Estimate size of objects
10. Estimate quantity of objects
11. Estimate quality of objects
12. Estimate speed of moving objects
13. Perceive form of objects
14. Keenness of vision
15. Keenness of hearing
16. Sense of smell
17. Sense of taste
18. Touch discrimination
19. Muscular discrimination
20. Color discrimination
21. Memory for details (things)
22. Memory for ideas (abstract)
23. Memory for oral directions
24. Memory for written directions
25. Memory of names and persons
26. Understanding of mechanical devices
27. Attention to many items
28. Oral expression
29. Skill in written expression
30. Arithmetic computation
31. Intelligence
32. Adaptability
33. Ability to make decisions
34. Ability to plan
35. Initiative
36. Concentration among distractions
37. Emotional stability
38. Personal appearance
39. Ability to meet and deal with the public
40. Tact in dealing with people
41. Work under hazardous conditions
42. Work high above ground
43. Work under unpleasant physical conditions (explain)
44. Other characteristics[10]

The form of the specification will vary with the type of job. It might be prose, a check sheet, a phrase outline or other convenient arrangement. In general, the job specification should include the following information.

1. Sex
2. Minimum or maximum age
3. Physical size and strength desired

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[10] Schaefer, *Op*. *Cit*., pp. 76-77.

4. Degree of intelligence demanded - often upper and lower limits are specified
5. Kind and amount of technical training required
6. Degree of skill necessary
7. Knowledge of measuring devices
8. Accuracy required
9. Educational requirements
   a. High school
   b. Commercial or trade school
   c. Other
10. Previous experience required
11. Personal qualities required
    a. Physical attractiveness
    b. Pleasing personality
    c. Neatness in appearance and dress
    d. Other
12. Special qualifications required, such as:
    a. Initiative and ambition
    b. Accuracy
    c. Good hearing, eyesight, memory, voice
    d. Ability to discover details
13. Requirements desired in equipment, tools, material, etc.[11]

It should be remembered that the job specification is not a listing of requirements that the trainee must possess to begin training but a description of the person that can best do the job after training. For example, a day-care center worker should have a vocabulary appropriate to the age of the children and be always alert to their safety. These are traits which could be learned during training.

For teaching, each requirement of the specification sheet should be broken down into final detail so that the teacher knows the specific degree of each requirement that must be taught. For example, if speed of movement is an occupational requirement of the housekeeping aide, what degree of speed should be attained? Should the aide be able to clean and make up a room in thirty minutes? Twenty? Fifteen?

In an attempt to explain the analysis of a job in order to prepare for the development of a wage-earning training program, the various related terms have been defined, procedure for use of the Dictionary of Occupational Titles has been reviewed, analyzing of a job has been outlined, a job description has been explained with principles for guidelines and with suggested samples of prose and check-list type, samples of 2-column analysis have been developed, and a job specification has been explained with suggestions for use. In the next chapter the placing of students in appropriate jobs will be considered. The importance of the position of job placement after job analysis and before the consideration of trainee qualifications lies in the extreme need to have positions open before bringing the student-learner into the program.

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[11] Schaefer, Op. Cit., pp. 79-80.

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5. Control group - to be compared with the development of the experimental group within the wage-earning course.
6. Daily progress charts - picturing the nature of the work and job procedures to show the teacher and administrators the training deficiencies.

Some of the basic steps in evaluating are:

1. formulating a concise statement of objectives.
2. making use of student self-evaluation.
3. using controlled experiments.
4. comparing before and after performance, perhaps with a pretest and retest.
5. reading on research and statistics and applying the information learned.

Follow-up

If evaluation is to be meaningful toward the improvement of the program, a follow-up study is essential. It is here that the students might be able to help point out shortcomings in the program. Supervisors might be another source of information. A teacher should make every effort to follow-up the student during the first few months after graduation, to assist him in adapting to the work requirements and in problems relating to the job. It is also hoped that this information learned on follow-up visits would be applied to the planning of more effective programs in the future.

Various forms can be adapted from the Illinois Teacher for use in follow-up and evaluation. Some of those available are Pre-Training Plans,[1] (a letter to past trainees to discover job position and method used in seeking employment), Weekly Log[2] (a training evaluation of attitudes, appreciations and experiences), Summary of Work Experiences[3] (log of cooperative program training experiences), Evaluation by Parents[4] (instrument to value work experience in cooperative program), and an Employer's Report[5] (rating scale to be filled out by the supervisor to aid in the evaluation of the student learners).

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[1] Illinois Teacher of Home Economics, Vol. VIII, No. 4, p. 192.
[2] Ibid, p. 200. [3] Ibid., p. 194. [4] Ibid., p. 193.
[5] Ibid., pp. 121-123.

A complete follow-up questionnaire has been developed for the employed post-trainee. The form and a suggested accompanying letter to introduce the study to a former student follow on this page and pages 37 and 38.

Wage-Earning Department
Homemaking Department
Education High School

Former Student of Wage Earning:

The Education High School is undertaking to do a follow-up study of all recent graduates of the wage-earning program. Would you, as a former student of this program, help us to obtain a clear picture of what happens to our graduates? This information is needed from former students to help us plan an improved program.

Enclosed is a questionnaire which we hope you will be kind enough to fill out and return to us. If you desire that any of your answers remain confidential, please advise us, specifically.

Any information which you may send us will be greatly appreciated.

Sincerely yours,

Homemaking Teacher

Follow-Up Questionnaire

Name____

Job____

Employer____

Address of Employer_______________________________

Name of the High School Wage-Earning Course Taken________________

Date of Completion________________________________

How do you feel about your job? _____Like it; _____Feel indifferent; _____Do not like it.

What does your job involve.

What do you like best about your job?

What do you like least about your job?

How did you get your present job?

_____By application

_____Through employment agency

_____By interview

_____By examination

_____Other method. Explain:

What were your yearly earnings (before deductions)?________________

Are you paid by the hour?____Yes; _____No. If yes, what is the hourly rate?__________

Follow-Up Questionnaire (continued)

Do you feel that your training at Education High School helped you in securing your job? _____Yes; _____No.

Do you feel that your training was a good investment? _____Yes, definitely; _____Yes, with reservations; _____No.

What problems have you encountered in your job that your training did not help you solve?

What problems have you encountered in your job that your training helped you solve?

What suggestions would you make for improving the training program to meet the requirements of the job?

Chapter V

DETERMINING THE QUALIFICATIONS OF TRAINEES

The student is the most important person in the wage-earning program. For this reason it is imperative that each trainee be selected with the greatest of care. The type of student selected will be a determining factor of the quality of the program.

Careful screening, counseling and conferencing will aid in discovering the interests, needs and abilities of the trainee, as well as in placing the trainee in a field of training on the basis of her potential for achieving competence in that occupation. The program should not be used as a "dumping ground" for those who have failed, or who show little interest in the regular school subjects. Since the program is designed fo educate for gainful employment, it is expected that trainees will enroll with this purpose in mind and that they will use their training in an occupation after graduation from high school.

I. GENERAL MINIMUM QUALIFICATIONS

A. Age

1. Cooperative Program - 16 years of age (18 years of age, hazardous occupations)
2. Non-Cooperative Program-- juniors and seniors (students who have been retained may qualify before reaching junior level)

B. Interest - is interested in the vocation

C. Ability - Has ability to be trained for the job

D. Health - is in good physical and mental health

II. OTHER DESIRABLE QUALIFICATIONS

A. Education

   1. At least one year of home economics
   2. Business arithmetic or general mathematics, general science and social studies or the equivalent

B. Attitudes

   1. Desire for self-improvement
   2. Willingness to follow instructions
   3. Willingness to accept responsibility

C. Personal traits

   1. Dependable
   2. Cooperative
   3. Honest
   4. Has initiative
   5. Courteous
   6. Alert
   7. Punctual
   8. Well-groomed

III. SPECIFIC QUALIFICATIONS FOR:

A. Supervised Food Service Worker

   1. Physical stamina
   2. Manual dexterity
   3. Ability to read, speak and write
   4. Ability to follow oral and written directions

B. Hotel and Motel Housekeeping Aide

   1. Physical stamina
   2. Manual dexterity
   3. Ability to work under supervision
   4. Tact

Following are some suggested methods of selecting trainees according to a review of their qualifications. On pages 42 through 46, sample sheets have been developed for use as guides. All items on these questionnaire forms should be adapted to meet local needs.

1. Student Application Form, page 42.
2. Student Data Sheet, pages 43-44.
3. Examination of school records. Absences, tardiness and detentions may be indicators of health, dependability, interest and reasons for low grades. The health record may be an indicator of students' physical stamina. School Records Evaluation Form, page 45.
4. Consultation with guidance department.
    a. Speak with guidance counselor concerning student-applicant.
    b. Obtain student's autobiography if available.
    c. Obtain results of testing services (results may be recorded on School Records Examination Form).
5. Consultation with applicant's previous teachers
    a. Speak with applicant's previous teachers
    b. Personality Analysis Form, page 46.
6. Individual conferences with applicant. Be alert for interest, attitudes, personal traits and specific qualifications. This will provide time also to impart information to the student applicant.
7. Parent conference.
    a. Learn attitude of the parent toward his child, toward the school, the wage-earning program and the community.
    b. Obtain consent for student to participate in the program and promise of cooperation.

STUDENT APPLICATION FORM

School__________________ Date__________________

Name__________________ Date of Birth__________ Age____

Address__________________ Phone__________ Sex______

Weight______________ Height________ General Health______

Physical Handicaps__________ Sight________ Hearing________

Parents or Guardian__________ Father Living_____ Mother______

Father's Occupation__________ Mother's Occupation__________

What do you plan to do after graduation?__________________

If you plan to go to college, what will you major in?__________

List of High School Subjects Completed

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Subject	Grade	Subject	Grade	Subject	Grade	Subject	Grade

In what occupation do you desire training while attending high school?

1st choice__________
2nd choice__________
3rd choice__________

What are your hobbies?__________________________

Previous Employment

Company	Position Held	Dates employed	Reason for leaving

STUDENT DATA SHEET

Name____________________ Date____________________

Father's Name____________________ Age__________

Mother's Name____________________ Age__________

Father and Mother are living together_____; living apart_____; separated_____; divorced_____; father deceased_____; mother deceased_____ father has remarried_____; mother has remarried_____.

Are you living with someone other than your parents?_____. If yes, who?____________________. Is this your legal guardian?_____

Number of brothers and sisters_____. Their ages are____________________

Do you make your own bed?_____ Do you clean your room?_____ Do you help take care of younger brothers and sisters?_____ Do you have any other chores assigned to you?_____ What are your chores?____________________

____

Do you like young children?_____ Do you do babysitting?_____ Do you attend Sunday school or church?_____

To what school organizations do you belong?____________________

____

Offices held____

To what other organizations do you belong? (4-H, etc.)____________________

____

Offices held____

Do you like to be with other people?_____; Younger?_____; Older?_____

Same age?_____; Name any musical instruments that you play__________

Do you sing?_____ Name other talents____________________

What sports do you enjoy watching?____________________

STUDENT DATA SHEET (continued)

What sports do you enjoy playing?________________________________

Do you like picnics?_____; dancing?_____; roller skating?_____; bowling?_____; swimming?_____; attending movies?_____; Do you attend Teen Town?_____ Do you prefer to entertain friends in your home_____ or go to parties in friends' homes?_____

How often do you watch television?_____ What television programs do you like best?________________________________

Do you enjoy reading?_____ What?________________________________

What magazines are regularly taken in your home?____________________
________________________________. Do you read them?________

Do you read a daily newspaper?_____ What high school subject did you enjoy most?______________; Least?______________. Name six teachers you have had in high school: 1.______________; 2.________
3.______________; 4.__________; 5.______________ 6.__________
__________. In what occupation do you wish to earn your living after you graduate from high school?______________ Why?______________
____

What do you know about this occupation? (type of work, opportunities for advancement, salary, self-satisfaction, etc.)____________________
____

Do you need to earn money during the next school year?_____; For what purpose?____

Why do you wish to enroll in the wage-earning class?________________
____
____

SCHOOL RECORDS EVALUATION FORM

Student____

	Freshman Year	Sophomore Year	Junior Year	Comments
Absences				
Tardys				
Detentions				

Special comments on student's discipline and conduct:

Health Record:

PERSONALITY ANALYSIS FORM

Name______________________________ Instructor____________________________

Evaluate each student by: A - Superior; B - Above average; C - average; D - Below average; or E - Poor.

Traits to be Rated	A	B	C	D	E	Comments
DEPENDABILITY: Promptness, sincerity, consistency, ability to work without supervision, truthfulness, following of instructions						
CULTURAL REFINEMENT: Courtesy, consideration, appreciation, manners, respect						
LEADERSHIP: Aggressiveness, forcefulness, imagination, judgment, resourcefulness, ability to inspire others to act						
INDUSTRY: Persistence, habits of work, use of time						
MENTAL ALERTNESS: Attentiveness, interest, eagerness to learn, memory						
THOROUGHNESS: Accuracy, sustained interest, completion of work, carefulness						
PERSONAL APPEARANCE AND GROOMING: Cleanliness, unoffensiveness, appearance, orderliness, poise						
ABILITY TO GET ALONG WITH OTHERS: Adaptability, friendliness, tact, cooperation, willingness to be counseled, respect for others, sense of humor						
SOCIAL HABITS: Attitude, self-control, honesty						

EMPLOYABILITY:

Can this student favorably represent the school on the job?________

If you were an employer, would you want this student working for you?

Chapter VI

DETERMINING THE QUALIFICATIONS OF WAGE-EARNING TEACHERS

Home economics is a field of knowledge and service primarily concerned with helping people achieve satisfying family life. Home economics in vocational education has been primarily concerned with educating the individual for the responsibilities involved in homemaking and achieving family well-being. Current social, economic, and technological developments which affect home and family living call for changes in home economics education. An increasing number of women are assuming two roles: the role of homemaking and family rearing, and the role of wage-earning for at least part of the time. They need preparation for both roles, since the proficiency with which a woman can carry both will determine the quality of her home and family life and her effectiveness as a wage-earner. Home economics has a contribution to education for both of these roles. All communities need programs for instruction in homemaking, but programs for wage-earning will be provided only when there is an established evidence of job opportunity.[1]

This need fn training for wage-earning brought about the Vocational Education Act of 1963, which was passed by the 88th Congress and signed by the President on December 18, 1963. Section 4 of the Act states the uses of the Federal Funds in accord with the Act as follows:

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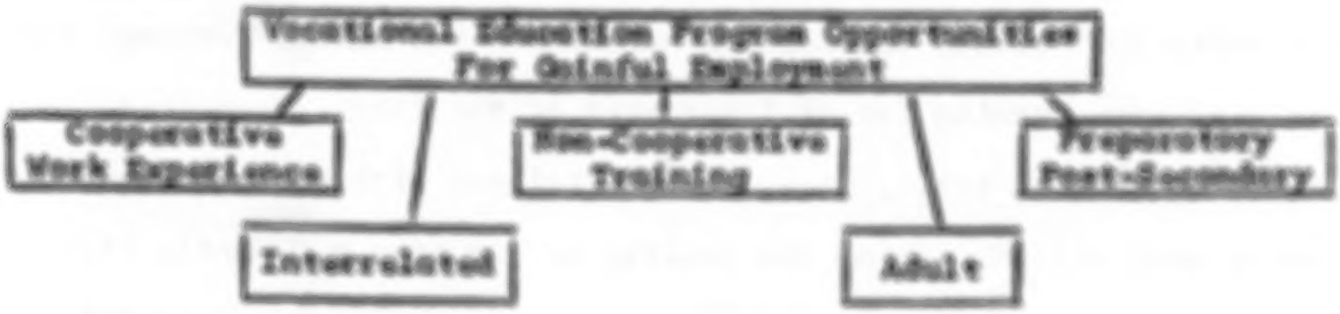
[1] Vocational Education in Tennessee, "Operational Procedures and Minimum Standards for Vocational Education in Tennessee Home Economics." April, 1965, p. 1.

> Except as otherwise provided. . . a State's allotment. . . may be used, in accordance with its approved State plan, for any or all of the following purposes:[2]

1. Vocational education for persons attending high school;
2. Vocational education for persons who have completed or left high school and who are available for full-time study in preparation for entering the labor market;
3. Vocational education for persons . . . who have already entered the labor market and who need training or retraining to achieve stability or advancement in employment;
4. Vocational education for persons who have academic, socio-economic, or other handicaps that prevent them from succeeding in the regular vocational education program;
5. Construction of area vocational education school facilities;
6. Auxillary services and activities to assure quality in all vocational education programs.

Types of Programs: Under the Vocational Education Act of 1963


Vocational Education Program Opportunities For Gainful Employment
Cooperative Work Experience
Interrelated
Non-Cooperative Training
Adult
Preparatory Post-Secondary

Interrelated program

Two or more vocational subject-matter fields may be combined in one class under certain conditions.

Instruction will be designed to fit individuals for employment in a recognized occupation in schools operated by the state board or local boards of education or by agreement with institutions or agencies. Instructional programs shall include classroom practical instruction in the field, shops, laboratories, and on the job experiences. The interrelated program is for students from two or more vocational subject matter fields; this involves team teaching.

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[2] Illinois, Vocational and Technical Education Division, Vocational Newsletter, Vol. XVII, No. 3 (March, 1964), p. 1.

1. Allowable in school attendance centers of less than 500 students or in school districts with no city or village of more than 15,000 population within its boundaries except by special approval.
2. Time is the same as for the most closely matched approvable vocational program with a weekly minimum of 200 minutes group instruction and 15 hours of on-the-job training or 275 minutes without on-the-job training.

Age of students - 16.

Qualifications - A vocational home economics teacher for the interrelated program of wage-earning training shall be a graduate of a four-year teacher education course in home economics from an institution approved for preparing teachers for vocational home economics. She must (1) have educational experience and skill in the subject to be taught and (2) be recommended by the local board of education and approved by the chief state supervisor.

Cooperative Work Experience

This includes supervised and coordinated practical experience programs for regular secondary students, or for persons who have academic, socio-economic or other handicaps. The instruction will be designed to fit individuals for employment in a recognized occupation in schools operated by the State Board or local boards of education or by agreement with institutions or agencies. All students shall receive on-the-job training for 15 hours per week, not less than half of which must be during the regularly scheduled day or during added time when the qualified coordinating teacher is assigned the responsibility for supervision.

1. Courses of two or more years in length shall have 200 minutes per week scheduled for class group instruction
2. Courses of less than two years in length shall have 200 minutes per week scheduled for class group instruction and previous experience in the occupational field or previous class instruction related to the occupational field or 200 minutes per week in a concurrent class related to the occupational field.

Age of students - All must be of the legal age for employment.

Qualifications - A vocational home economics teacher for the cooperative program of wage-earning training shall be a graduate of a four-year teacher education course in home economics from an institution approved for preparing teachers for vocational home economics. A minimum of 20 semester hours in home economics courses including courses related to occupations to be supervised, professional home economics education courses related to organization and supervision of operative programs, and a year's accumulative work experience in one or more occupations related to home economics.

Non-Cooperative Training

In-class vocational instruction of preparatory nature only for regular secondary students, or for persons who have academic, socio-economic or other handicaps is the definition of the non-cooperative program. The instructional training shall include classroom and practical instruction in the field, shops, laboratories and on-the-job experience.

1. Courses of two or more years in length shall have 275 minutes per week scheduled for class group instruction.
2. Courses of less than two years in length shall have 550 minutes per week scheduled for class instruction or 275 minutes per week if students have had previous experience in the occupational field or 550 minutes per week of which 275 minutes may be in a concurrent class related to the occupational field.

Age of students - Students must be in the eleventh or twelth grade, or sixteen years of age.

Qualifications - A vocational home economics teacher for the non-cooperative program of wage-earning training shall be a graduate of a four-year teacher education course in home economics from an institution approved for preparing teachers for vocational home economics. Home economics courses related to instructing trainees for occupations for wage-earning and a year's accumulative experience in one or more occupations related to home economics are strongly advised. Courses with directed work experience may be used to accumulate this total.

Adult

Vocational instruction for training or retraining persons who have entered the labor market or are homemakers fall under the adult program. Eligible persons are those who have completed or have dropped out of school. The instruction will be designed to meet the training and retraining needs of persons who have already entered the labor market and are in need of such training to achieve stability or advancement. Classes may be organized to provide instruction to up-grade and up-date skills and increase the technical knowledge of groups of workers having similar training needs and to provide new skills for those who need retraining. The instructional program may be limited to classroom instruction or may consist of classroom instruction and practical instruction in the field, shops, laboratories and on-the-job experience. The length of the course should be a sufficient number of hours to provide organized instruction in a specific subject matter area.

Age - The minimum age of the trainees is 16 years.

Qualifications - Teachers for the adult program of wage-earning training must (1) have proper education, experience and skill in the subject to be taught, (2) be recommended by the local board of education, and (3) be approved by the chief state vocational supervisor.

Preparatory Post-Secondary

For those who have completed or left high school and are available for full-time study at the 13th and 14th grade levels, a post-secondary program is available. The instruction will be designed for persons who have completed or left high school and who are available for full-time study in preparation for entering the labor market. Classes will be conducted on full time, half-time or a part-time cooperative basis. The instructional program shall include classroom and practical instruction in the field, shops, laboratories and on-the-job experience.

Qualifications - The vocational home economics teacher for the post-secondary program of wage-earning training shall have the same requirements as other teachers who are training persons to enter the labor market. He must be taught in order to provide an educational program for youth in the 13th and 14th grades or at these educational levels with training that leads directly to employment in technical, semi-professional or semi-skilled occupations which use home economics knowledge or skills.

SUPERVISED FOOD SERVICE WORKER

The suggested lessons which follow are for training persons on the non-cooperative program who are to be employed by health, welfare, or other institutions for work in the preparation and serving of food.

It will be necessary to adapt these suggestions to the group of students, the job or jobs for which training is being given, background of students and other factors including time and facilities. Institutions such as nursing homes, hospitals, homes for aged, children's homes, child day-care centers, school lunch rooms are possibilities for the food service worker.

Objectives for the training program:

1. To assist the head cook in preparing and cooking food in institutions or to serve as the only cook in small institutions.
2. To learn methods of preparing, cooking and serving all types of food.
3. To learn to plan the sequence of work.
4. To learn time and energy-saving methods.
5. To follow principles of sanitation in preparation and cleaning.
6. To learn to evaluate products and work experience.
7. To cultivate personal qualities needed for job success.

The materials are not all-inclusive and exhaustive. They are experimental as suggestive lessons possibilities. Reactions to their use will be appreciated as they are tried by teachers giving this training program.

2-15

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COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES

A. Salads

- I. Plain raw vegetables--Lettuce and Tomato Salad
- II. Mixed raw vegetables--(a) Cole Slaw
  - (b) Mixed Greens Salad
- III. Fruit salad
- IV. Protein salad--Tuna Salad
- V. Gelatin salad--(a) Tomato Aspic
  - (b) Gelatin and Fruit
- VI. Frozen salad--Frozen Fruit Salad

B. Vegetables

Boiling vegetables

- I. Tuber and root vegetables--(a) Mashed Potatoes
  - (b) Buttered Carrots
- II. Leafy vegetables--Spinach
- III. Seed and stem vegetables--Green Beans Amadine
- IV. Strong-flavored vegetables--Cauliflower au Gratin

Baking vegetables

- V. Plain--Potatoes
- VI. Stuffed--Acorn Squashes
- VII. Scalloped--Egg Plant

Frying vegetables

- VIII. Pan-fried--Potatoes
- IX. Deep-fat fried--French Fried Poatatoes

C. Sandwiches

Plain sandwiches

- I. Hot--Hamburgers
- II. Cold--Ham Salad
- III. Grilled cheese

Open-faced sandwiches

- IV. Hot--Beef or Pork
- V. Appetizers--Canapes

Fancy or Party Sandwiches

- VI. Rolled or Pinwheel
- VII. Ribbon or Checkerboard
- VIII. Club
- IX. Sandwich loaf

D. Quick Breads

- I. Pour batter--Griddlecakes
- II. Drop batter--Muffins
- III. Soft dough--Biscuits

E. Meats

Dry heat Methods

- I. Roasting--Standing Rib Roast

II. Boiling--Beef Steak
III. Pan-broiling--Ham Slice
Moist-heat methods
IV. Braising--Pork Chops
V. Stewing or boiling--(a) Stewed Chicken
(b) Lamb Stew
Cooking in Fat
VI. Pan-frying--Fish
VII. Deep-fat frying--Chicken Cutlets
Cooked with extenders
VIII. Baking--Meat Loaf
IX. Casserole--Tuna and Rice Casserole

F. Desserts
Fruit
I. Fresh or canned--Ambrosia
II. Stewed or cooked--Winter Compote
III. Baked--Baked Apples
Milk
IV. Pudding--Vanilla Cornstarch Pudding (Blanc Mange)
V. Custard--(a) Soft Custard
(b) Baked Custard
Gelatin
VI. Plain or whipped--(a) Plain Orange
(b) Whipped Orange
VII. Sponges--Lemon Snow
VIII. Custard--base gelatin--Spanish Cream
IX. Whipped--cream gelatin--Orange Charlotte
Frozen
X. Ices or frappes--Pineapple Snow
XI. Sherbets--Orange Sherbet
XII. Ice Cream--Vanilla Ice Cream
XIII. Mousses and parfaits--Strawberry Mousse

G. Cakes
Cake with fat
I. Plain layer cake--convention method
II. Plain white cake--quick mix method
III. Chocolate cake
IV. Chiffon cake (oil)
Cakes without fat
V. Angel food
VI. Yellow sponge

H. Frostings
Uncooked frostings
I. Confectioners' sugar--Orange Butter Frosting
Cooked frostings
II. Fudge type--Chocolate Fudge Frosting
III. Cooked sirup over egg whites--Boiled Frosting
IV. Ingredients beaten together--Double-Boiler Frosting

I. Cookies
  - I. Bar cookies--brownies
  - II. Drop cookies -- Oatmeal
  - III. Refrigerator cookies--Ginger
  - IV. Molded cookies--Sandies
  - V. Rolled cookies--Sugar
  - VI. Pressed cookies--Butter Tea

J. Pastries
  - One-crust Pies
    - I. Cream meringue--Lemon Meringue
    - II. Soft pies--Pumpkin
  - Two-Crust Pies
    - III. Fruit pie--cherry

COOK"S HELPER II
SEQUENCE OF WORK EXPERIENCES ON SALADS

Sequence of work experiences:

I. Plain raw vegetables--Lettuce and Tomato Salad
II. Mixed raw vegetables--(a) Cole Slaw Salad
(b) Mixed Greens Salad
III. Fruit salads--
IV. Protein salads--Tuna Salad
V. Gelatin salads--(a) Tomato aspic
(b) Gelatin and Fruit
VI. Frozen salads--Frozen Fruit Salad

Introduction:

Salads used to be considered "rabbit food" by men and did not sell well. But not any longer! With most men as well as women trying to control their weight by choosing foods with few calories, salad sales have increased. Salads also are apt to be selected if they offer attractive contrasts in color, texture, and flavor.

Work to be done:

1. Read the Information Sheet on Salads.

2. Look up and write the definitions of the following words:

   nutrients
   appetite appeal
   appetizer
   entree
   ingredients
   riboflavin
   cellulose
   bacteria
   portions
   sanitation
   crevices
   artistic
   emulsion
   temporary
   permanent
   alternately
   gelatin

3. Read the information on Salads in Chapter 31, pages 379-388, in Guide to Modern Meals, by Shank, Fitch and Chapman.

4. Answer the study questions below:

   In what five ways may salads be used in a meal?
   What is a specific example of each kind?
   In choosing a salad, which ones are "light"? Which ones, "heavy"?
   How is heartiness influenced by the salad dressing?
   Why does the size of the portion affect the food value?
   What five purposes may be served by salads in the diet?
   In what ways can spoilage from bacteria be reduced?
   What three conditions result in a salad of salable quality?

What are three basic types of salad dressings?
What are the specific qualities of each type?
For what type of salad might each dressing be used?

5. Prepare salads according to the procedure sheets.

6. Evaluate your work and the salads by using the judging sheets and score cards.

7. Figure the cost per serving of the salads by using the cost sheets.

INFORMATION SHEET--SALADS

SALADS ARE PREPARED AND CHOSEN IN TERMS OF THEIR APPETITE APPEAL AND CONTRIBUTION OF NUTRIENTS TO THE DIET.

Various salads are used in a meal as an appetizer, an entree, a side dish, a separate course, and a dessert.

An appetizer salad is light, not appetite-satisfying, and often made of greens with a tangy dressing .

Protein foods, vegetables, and occasionally fruits are used in salads which are served as the main course or entree.

Side dish salads are light, varied, and served in small portions, but they may be used as a separate course, often with a crisp, starchy food.

A dessert salad, usually made of fruit, may be light or heavy, ranging from a fresh fruit to a rich frozen salad with a whipped cream base.

Salads provide varied degrees of heartiness to a customer's meal.

Cole slaw, mixed greens, gelatin molds, and raw fruits and vegetables usually provide a light salad.

Protein foods, cooked vegetables, and frozen salads often result in a hearty salad.

Salad dressings may range from one calorie to many, thereby affecting the heartiness of a salad.

The food value of a salad is related to the size of each portion and to the nutrients in the ingredients and dressing.

The size of the portion served influences the amount of food value, as well as the number of portions made from a given amount of ingredients.

Nutrients in salad ingredients and dressings aid body functions.

Body tissues are built by protein found in meat, fish, poultry, eggs, cheese, and nuts.

Energy is supplied by fats found in salad oils, milk, cheese, eggs, and cream.

Vitamins in salad ingredients and dressings help maintain body processes.

Salads containing tomatoes, green peppers, raw cabbage, cauliflower, and citrus fruits contribute Vitamin C.

Salad greens, dark green and deep yellow vegetables, milk, cheese and eggs contribute Vitamin A.

Riboflavin appears in small amounts in dark green vegetables.

Roughage is provided by the cellulose in salad greens, fruits and vegetables.

Minerals are found in specific salad ingredients.

Deep yellow and dark green vegetables, fruits and eggs used in salads aid in supplying iron.

Eggs, cheese, meat, fish, poultry and nuts contribute phosphorous to the diet.

Because bacteria tend to grow most readily in warm, moist places, fresh, quality ingredients, low temperatures, clean hands and equipment help to reduce spoilage.

Fresh ingredients reduce the likelihood of bacteria being present.

Prompt removal of all spoiled parts in fruits and vegetables aids in preventing rapid spoilage.

Refrigeration discourages growth of bacteria which is especially dangerous in protein salads.

Storage of foods on trays or in small containers provides for faster cooling.

Pre-chilled plates for salads help to keep refrigerated folds cold.

Refrigeration of all cold salads as soon as they are prepared helps decrease bacterial growth.

Serving salads as soon as possible after preparation tends to reduce spoilage.

Washing hands before and during preparation of salads aids in maintaining high standards of sanitation when cooking for the public.

Examination for any left-over food in crevices and seams of equipment helps prevent growth of bacteria in salads.

Fresh ingredients, directions followed exactly, and attractive salad arrangement are related to the quality of the salad.

The purchase of quality ingredients contributes to the sale of salads.

Directions followed exactly helps to produce salads of high quality.

Eye-and appetite-appeal are increased if a salad is artistic in color and neatly arranged in the space provided on the plate.

Salad dressings are of three basic types, thereby possessing different qualities suitable for various salads.

French dressing is a temporary emulsion made from oil, vinegar, and seasoning.

The lack of an emulsifying agent in an uncooked dressing results in the dressing separating on standing.

Beating or shaking the ingredients together before using aids in restoring the emulsion.

French dressing is suitable for tossed salad of greens, mixed vegetable salad or fruit salad.

Mayonnaise is a permanent emulsion made from oil, vinegar, egg and seasonings.

Beating the ingredients for mayonnaise slowly and alternately into egg yolk results in a permanent emulsion.

The addition of a rich dressing to a salad such as mayonnaise contributes to making a hearty salad of fish, meat, stuffed tomato or egg salads.

The cooked salad dressing is made without oil by cooking vinegar, flour or cornstarch, and egg yolk together.

Cooked salad dressing provides variety and is less rich than French dressing or mayonnaise.

Cooked salad dressing is suitable for milk fruit salad, vegetable salads or gelatin salads.

SALAD PROCEDURE SHEET--WORK EXPERIENCE I
Lettuce and Tomato Salad (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all the following equipment on a cart:
   1 paring knife
   2 colanders
   2 bun pans
   12 salad plates stored in refrigerator
   1 slicing or French knife
   1 slicing board
   1 refrigerator pan with cover
   1 sandwich spatula
   12 #45 paper cups
   1 small bowl stored in refrigerator
   1 large mixing spoon without slots
   1 tablespoon
   1 teaspoon
   1 small rubber scraper

3. Assemble all ingredients for salads on a tray:
   tomatoes--4 medium size
   lettuce--two large size heads
   mayonnaise--locate but keep refrigerated

4. Prepare the lettuce:
   Remove the outer leaves from each head if they are not good enough to eat.
   Remove all spoiled spots with a paring knife.
   Remove the core of each head with a paring knife using a circular motion.
   Put cores and waste leaves into the waste can.
   Separate the leaves of the lettuce heads by running cold water into the place where each core was removed and gently pulling the leaves apart.
   Place the wet leaves with the cup side down in one colander on the drainboard of the sink.
   Leave the lettuce to drain while preparing the tomatoes.

5. Prepare the tomatoes:
   Wash in cold water, handling carefully.
   Remove with the paring knife the stem and tip, as well as any spoiled spots.
   Place the tomatoes in the other colander on the drain board.

6. Set up twelve lettuce cups:
   Place in each bun pan six pre-chilled salad plates from the refrigerator.
   Check every plate for cleanliness and freedom from chips and stains.
   Shake each lettuce cup gently to remove water; if necessary, blot with a towel.
   Combine smaller pieces if any leaf is not large enough to form a cup.
   Place cup in center of plate so all edges are on plate.

7. Slice tomatoes:
   Assemble cutting board, tomatoes, and a sharp slicing or French knife.
   Hold each tomato in one hand and cut with the hand that you find more skillful.
   Cut each medium size tomato into 4-5 slices of uniform thickness.
   Place the irregular end parts in a covered refrigerator pan.
   Store for later use in mixed salads or for cooking.

8. Arrange tomato slices in lettuce cups:
   Lift three tomato slices with great care with sandwich spatula.
   Overlap slightly in each cup so that they fit but show as much tomato as possible.
   Complete the twelve salads on plates set in bun pans.
   Use cart to wheel into the walk-in refrigerator.
   Plan to serve salads as soon as possible.

9. Prepare the mayonnaise:
   Remove the jar of mayonnaise from the refrigerator, checking to make sure that at least 12 ounces are available.
   Place 12 small paper cups on tray to avoid accidents on salad plates.
   Estimate mayonnaise needed and place in a small, prechilled bowl.
   Beat smooth with a large mixing spoon.
   Lift one rounded tablespoon of mayonnaise and fill paper cup about 3/4 full.
   Use teaspoon to remove mayonnaise from tablespoon each time, if necessary.
   Restore tray with cups and mayonnaise jar to the refrigerator.
   Place a cup on each plate, not on lettuce, at serving time.

10. Clean work area:
    Return unused mayonnaise from paper cups to jar, using rubber scraper.
    Care for unsold salads, as directed; refrigerate these and mayonnaise.
    Wash, rinse, and drain in rack for air drying.
    Dispose of the waste as instructed.
    Wipe the cutting board with a clean cloth and sponge.
    Wipe the tray, cart surface, drain board, and counter where you worked.
    Return all preparation and cleaning utensils and supplies to the proper place.
    Replace 12 salad plates in refrigerator.
    Wipe up any spills on the floor, if necessary.

11. Evaluate the salads and your work using the judging sheet.

12. Figure the cost per serving of the salads by using the cost sheet.

SALAD PROCEDURE SHEET--WORK EXPERIENCE II (a)
Cole Slaw (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:

   1 1-cup measuring cup
   1 set measuring spoons
   1 set dry measuring cups
   1 metal spatula
   wax paper for measured dry ingredients until used
   2 chilled mixing bowls (locate, but keep refrigerated)
   1 rotary beater
   1 rubber scraper
   1 paring knife
   2 colanders
   1 French chef's knife
   1 shredder
   1 slicing board
   1 large spoon without slots
   12 pre-chilled large bowls (locate, but keep refrigerated)
   1 bun pan
   plastic wrap for covering bowls

3. Measure and assemble all ingredients on a tray:

   cabbage--approximately 21 lbs. or 6 medium size heads
   green peppers--2
   mayonnaise--3/4 cup
   cream--3 tablespoons
   sugar--1 tablespoon
   salt--3/4 teaspoon
   pepper--1/4 teaspoon

4. Prepare dressing for cole slaw:

   Put mayonnaise, cream, sugar, salt and pepper in bowl.
   Thoroughly mix above ingredients with rotary beater.
   Cover bowl with plastic.
   Refrigerate dressing.

5. Prepare cabbage and green pepper:

   (a) Wash cabbage and green peppers:
      Remove outer leaves from each head of cabbage if they are not good enough to eat.
      Remove all spoiled parts of cabbage heads with paring knife.
      Put waste leaves into waste can or disposer.
      Wash each head of cabbage and green pepper thoroughly in cold water.
      Place cabbage heads in one colander on drain board of sink.
      Remove spoiled spots from green peppers with paring knife.
      Cut peppers in quarters and remove inner core and seeds.
      Wash peppers in cold water.
      Place peppers in other colander on drain board of sink.

   (b) Prepare cabbage:
      Cut each head in quarters with French chef's knife.
      Shred cabbage on shredder over slicing board, making certain to cut across the grain (hold 1/4 head in hand, core in palm of hand and outside leaf next to palm; push down on shredder blades).

(or) Remove core from heads; wash thorough as above and drain; cut in 1/4's and place in electric shredder.

(c) Chop pepper:

Place green pepper on cutting board.

With French chef's knife, chop green pepper.

With one hand, hold point of knife on board, raising and lowering knife with other hand in lever motion.

Chop pepper into pieces not larger than 1/4 inch square.

6. Prepare cole slaw:

Place shredded cabbage and pepper in chilled mixing bowl.

Add part of dressing and stir with large spoon; use only enough dressing to coat all salad ingredients.

7. Prepare salad bowls:

Place in bun pan 12 pre-chilled salad bowls from refrigerator.

Check every bowl for cleanliness and freedom from chips and stains.

Measure 1/3 cup of cole slaw into bowls, making sure slaw is within limits of bowl.

Cover salads as directed.

Use cart to wheel salads to refrigerator.

Serve salads as soon as possible.

8. Clean work area as directed in Work Experience I.

9. Evaluate the cole slaw and your work by using the judging sheet and score card.

10. Figure the cost per serving of the cole slaw by using the cost sheet.

SALAD PROCEDURE SHEET--WORK EXPERIENCE II (b)
Mixed Green Salad (Tossed Salad) (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 set measuring spoons
   1 metal spatula
   wax paper
   1 1-pint measuring cup
   1 1-cup measuring cup
   1 pre-chilled jar with lid (locate, but keep refrigerated)
   1 paring knife
   2 colanders
   1 vegetable brush
   1 chilled mixing bowl
   1 slicing board
   1 French chef's knife
   2 large salad forks
   12 pre-chilled salad bowls (locate, but keep refrigerated)
   1 bun pan

3. Measure and assemble all ingredients for salad on a tray:
   lettuce--2 medium heads
   cucumber--1 medium size
   radishes--12
   tomato--3 2½ inch diameter
   sugar--1/2 teaspoon
   dry mustard--1 teaspoon
   pepper--1/2 teaspoon
   salt--1 1/2 teaspoon
   paprika--1 teaspoon
   salad oil--1 3/4 cup
   lemon juice--1/2 cup

4. Prepare dressing for salad:
   Put the sugar, dry mustard, salt, pepper, paprika, salad oil and lemon juice into a chilled jar which has a tight-fitting lid.
   Cover jar with lid and shake above ingredients until completely mixed.
   Refrigerate in jar until ready to use.

5. Clean salad ingredients:
   (a) For lettuce:
   Prepare as directed in Salad Work Experience I, step 4.
   (b) For cucumbers and radishes:
   Under cold running water, with vegetable brush, scrub cucumbers and radishes until completely free of soil.
   Remove any spoiled spots from cucumbers or radishes with paring knife.
   With paring knife cut off root and stem ends of radishes and stem and tip ends of cucumbers.
   Place cucumbers and radishes in second colander on drain board of sink.
   Dispose of waste.
   (c) For tomato:
   Wash in cold water, handling carefully.
   Remove with paring knife the stem and tip, as well as any spoiled parts.
   Place tomatoes in colander with cucumbers and radishes.
   Dispose of waste.

6. Prepare salad:
   With hands tear heads of lettuce into bite-sized pieces, placing into chilled mixing bowl.
   With French chef's knife, holding as directed before, slice cucumber and radishes, into paper-thin slices. Do not peel cucumber or radishes.
   Place cucumber and radish slices in mixing bowl with lettuce.

7. Prepare salad and dressing:
   Immediately before serving, pour part of previously prepared French dressing on salad using only enough to coat all ingredients or serve dressing and salads separately.
   Toss salad ingredients with two large salad forks until dressing coats salad pieces; be careful not to crush the ingredients.

8. Prepare salads and bowls:
   Place in bun pan 12 pre-chilled salad bowls.
   Check every bowl for cleanliness and freedom from chips and stains.
   Place mixed salad in chilled salad bowls, making certain that all ingredients are inside bowl.
   Immediately before serving, cut tomatoes in eighths with French chef's knife.
   Place 2 pieces of tomato on salad, one on each side of bowl.
   (If salads are to be held and if ingredients must be mixed earlier, do not mix dressing with ingredients or prepare tomatoes for top of salad; do this immediately before serving.)
   Cover salads as directed.
   Use cart to wheel salads into refrigerator.
   Serve salads as soon as possible.

9. Clean work area as directed before.

10. Evaluate your work and the salads by using the judging sheet and score card.

11. Use the cost sheet to figure the cost per serving.

SALAD PROCEDURE SHEET--WORK EXPERIENCE III
Fruit Salad (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   - 1 1-cup measuring cup
   - 2 colanders
   - 1 paring knife
   - 1 French chef's knife
   - 1 slicing board
   - 1 mixing bowl stored in refrigerator
   - 12 #45 paper cups
   - 1 mixing spoon
   - 1 narrow rubber scraper
   - 1 strainer
   - 1 small bowl with cover which strainer will fit
   - 2 forks
   - 12 salad plates stored in refrigerator
   - 2 bun pans

3. Measure and assemble all ingredients on a tray:
   - bananas--4 medium size
   - oranges--2 3-inch diameter
   - grapefruit--4 2½-inch diameter
   - grapes--1 cup
   - apples--2 2½ to 3-inch diameter
   - pineapple cubes--8 oz. can
   - French dressing (locate but keep refrigerated)
   - Mayonnaise (locate, but keep refrigerated)
   - lettuce--2 heads, medium size (9 oz.)

4. Wash fruit:
   Under cold running water wash grapes until completely free of soil; discard any grapes which are not good enough to eat.
   Under cold running water, completely wash apples making certain that all soil is washed from blossom and stem ends.
   Drain grapes and apples in colander on drain board of sink.
   Dispose of waste.

5. Clean lettuce:
   Prepare as directed in Salad Work Experience I, Step 4.

6. Prepare salad dressing:
   (a) French dressing:
      Prepare French dressing as directed in Work Experience II, mixed green salad, No. 4, or use a commerically prepared dressing.
      Refrigerate dressing after making or leave refrigerated if prepared dressing used.
   (b) Prepare mayonnaise:
      Prepare mayonnaise in #45 paper cups as directed on Work Experience I.
      Cover and refrigerate as directed on Work Experience I.

7. Prepare fruit:
   - (a) Oranges and grapefruit:
     - Holding fruit with one hand on slicing board, with point of paring knife, cut through skin of fruit, but not into flesh of fruit.
     - Cut from stem end to blossom-end, making slits at regular intervals around fruit.
     - With fingers remove peeling sections from fruit.
     - Dispose of peeling.
     - Separate fruit sections and place in chilled mixing bowl.
   - (b) Grapes:
     - Cut grapes in half with paring knife on slicing board.
     - If grapes with seeds are used, remove seeds.
     - Dispose of waste.
     - Place grape halves in mixing bowl with other ingredients.
   - (c) Pineapple:
     - Open can of pineapple.
     - Pour can of pineapple and juice into strainer which is placed over small bowl.
     - When juice has drained in bowl, empty pineapple into mixing bowl with other ingredients.
     - Cover bowl with juice and refrigerate.
     - Dispose of can.
   - (d) Apples:
     - Slice apples with French chef's knife into quarters, stem end to blossom end.
     - Remove core from each quarter with paring knife.
     - With French chef's knife, slice each quarter into sections which are not more than 1/4 inch thick at thickest part.
   - (e) Bananas:
     - Peel bananas; remove any soft spots on banana with paring knife.
     - Dispose of peel and soft parts.
     - On slicing board, slice bananas with French chef's knife into rounds which do not exceed 1/4 inch thickness.
     - Place banana slices in mixing bowl with other ingredients.

8. Mix dressing and fruit ingredients:
   - Sprinkle 4 tablespoons French dressing over ingredients.
   - Mix carefully, using two forks, being careful not to spoil fruit shapes.

9. Prepare lettuce and fruit cups:
   - Place in each bun pan 6 pre-chilled salad plates from refrigerator, checking each for cleanliness and freedom from chips and stains.
   - Shake each lettuce leaf gently to remove any excess water; if necessary, blot with clean cloth towel.
   - Combine smaller pieces of lettuce if any leaf is not large enough to form a cup.
   - Place cup in center of plate so all edges are on plate.

Measure 1/2 cup (No. 8 dipper) of mixed fruit ingredients into lettuce cup.
Cover salads as directed and refrigerate if salads are to be held (salads using fresh fruits should be made immediately before serving).
Immediately before serving, place #45 paper cup of mayonnaise on side of each salad plate, not on lettuce.

10. Clean work area as directed in previous work experience.

11. Evaluate salad and work using the judging sheet and score card.

12. Figure the cost per serving of the salads by using the cost sheet.

SALAD PROCEDURE SHEET--WORK EXPERIENCE IV
Protein Salad (Tuna) (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   - 1 set dry measuring cups
   - 1 1-cup liquid measuring cup
   - 1 saucepan with cover
   - 1 paring knife
   - 2 colanders
   - 1 vegetable brush
   - 1 small bowl (uncovered which strainer will fit)
   - 2 strainers
   - 1 mixing bowl, stored in refrigerator
   - 1 French chef's knife
   - 1 slicing board
   - 1 fork
   - 12 salad plates stored in refrigerator
   - 2 bun pans
   - 1 No. 12 dipper
   - 1 small bowl (covered which strainer will fit into)

3. Measure and assemble ingredients on tray:

   (a) If making stuffed tomato salad:
   tomatoes--12 medium 2½ inch diameter
   lettuce--2 heads 9-oz. each
   tuna--2 cans--7 oz.
   eggs--4
   celery--2 stalks
   chopped pickle--¼ c.
   mayonnaise--2/3 cups.

   (b) If making tuna salad on lettuce cup:
   Use ingredients in part A, but omit tomatoes.

   (c) If making fruit with cottage cheese:
   canned fruit such as peach halves, sliced pineapple, pear halves, etc. (enough for two slices or halves for each salad)
   cottage cheese
   cheese strips or other garnish (marashino cherries)
   lettuce--2 heads 9-oz. each

4. Prepare eggs:
   Put eggs in saucepan, and cover with cold water. Cover.
   Bring water quickly to a boil.
   Immediately reduce heat to keep water just below simmering.
   Set timer for twenty minutes.
   Cool eggs immediately in cold water to reduce possible darkening on surface of yolks and make it easier to remove the shells.

5. Clean lettuce, tomato and celery while eggs are being cooked:

   (a) Lettuce:
   Prepare lettuce as directed before on Salad Procedure sheet, Work Experience I, No. 4.
   If using escarole, thoroughly wash greens under cold running water; shake greens gently, and place in colander to drain.

(b) Tomatoes:
Wash tomatoes under cold running water, making sure all soil is removed at stem end.
Drain tomatoes in second colander on drain board of sink or dry with clean cloth towel, if necessary.

(c) Celery:
Wash celery stalks under cold running water; use vegetable brush to completely remove all soil.
Drain celery in colander with tomatoes, or dry with clean cloth towel if necessary.

6. Prepare salad ingredients:
(a) Prepare tuna:
Open cans of tuna.
Empty tuna into strainer over bowl.
After oil has drained from tuna, place tuna in mixing bowl.
Dispose of oil as directed.

(b) Pickles or relish:
Use 1/4 cup relish if whole pickles not used.
If whole pickles used, cut stem end from pickles; dispose.
Place pickles on slicing board, and chop with French chef's knife into pieces which do not exceed 1/4 inch square.
Place chopped pickles or relish into mixing bowl with tuna.

(c) Celery:
Cut leaves from stalk, and store or dispose of as directed.
On slicing board with French chef's knife, slice celery into 1/8 inch thick slices.
Place sliced celery into mixing bowl.

(d) Eggs:
On slicing board, roll cooked and cooled eggs between palm of hand and board, cracking the shell.
Remove the shell from egg, dispose of shells.
With French chef's knife, chop egg into pieces which do not exceed 1/2 inch square.
Place chopped egg in mixing bowl with other ingredients.

7. Prepare tuna stuffing:
To ingredients included in number 6, add mayonnaise.
Mix ingredients lightly, but completely, with fork, being careful not to spoil shape of egg.

8. Prepare lettuce cups as on procedure sheet, Work Experience III, No. 6.
If salad of lettuce cup and stuffing is used without tomato, omit points 9 and 10, placing directly on lettuce.
Proceed to point 9 if stuffed tomato salad is to be made.
Proceed to point 11 if fruit and cottage salad is to be made.

9. Prepare tomatoes for salad:
Cut around the stem of each tomato, and remove the stem.
Slice the tomato from stem and toward bottom into six sections, (making three cross-cuts at regular intervals around the tomato; leave the sections joined at the bottom of the tomato.
Loosen the sections, spreading them apart, and place one tomato on each lettuce cup.

10. Fill tomatoes with stuffing:
Using a No. 12 dipper or a 1/3 cup dry measuring cup, fill tomato with stuffing.
Make sure stuffing does not spill over tomato or lettuce cup.

11. Prepare fruit and cottage cheese salad:
Drain canned fruit as directed in procedure sheet, Work Experience III, Point 7 (c).
Place two halves or slices of fruit on lettuce cup.
Using No. 12 dipper or 1/3 cup dry measuring cup, dip cottage cheese on fruit, distributing evenly between two parts of fruit.
Garnish salad with cherry, cheese strips, or other garnish as directed.

12. Cover salads and store as directed; serve salads immediately.

13. Clean work area as directed before.

14. Evaluate salads and your work using judging sheet and score card.

15. Figure cost of salads using cost sheets.

SALAD PROCEDURE SHEET--WORK EXPERIENCE V (a)
Gelatin Salad, Tomato Aspic (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 set measuring spoons
   wax paper
   1 1-cup measuring cup
   2 1-quart measuring cups
   1 sauce pan
   1 wooden spoon
   12 individual salad molds (1/2 cup capacity)
   2 bun pans
   12 salad plates stored in refrigerator
   1 colander
   1 paring knife

3. Measure and assemble ingredients on tray:
   tomato juice--4 1/2 cups
   unflavored gelatin--3 tablespoons (3Oz.)
   salt--3/4 teaspoon
   sugar--1 1/2 teaspoon
   monosodium glutamate--½ teaspoon
   Worcestershire sauce--1 1/2 teaspoon
   lemon juice--1/3 cup
   salt-free shortening

4. Prepare ingredients:
   Measure 1 1/2 cups of tomato juice into saucepan.
   Sprinkle unflavored gelatin over tomato juice.
   Mix juice and gelatin over low heat until gelatin is completely dissolved (use wooden spoon).
   When gelatin is dissolved, remove pan from heat.
   Stir the remaining tomato juice, salt, sugar, monosodium glutamate, Worcestershire sauce and lemon juice into *gelatin-juice mixture*.
   Stir until all ingredients are completely mixed.

5. Prepare molds:
   Rub individual salad molds with a salt-free fat, being careful to leave almost invisible film of fat.
   Place molds on bun pan.
   Pour aspic mixture into large liquid measuring cup.
   From large measuring cup pour 1/2 cup of mixture into each mold.
   Refrigerate molds immediately, using bun pan to carry them into refrigerator.
   Chill until tomato aspic is firm.

6. When aspic is firm, prepare lettuce and cups as directed in Salad Work Experience I, No. 4.

7. Remove gelatin from molds:
   Loosen the gelatin around the top of mold with the tip of a paring knife.
   Dip the mold into hot water for a few seconds.
   Turn salad plate with lettuce cup upside down on top of mold.
   Turn plate and mold over so that mold is upside down in lettuce cup on plate.
   Gently remove mold; if mold will not loosen, repeat hot water treatment.

Serve salads immediately, garnishing as directed.
If salads not sold immediately, store in refrigerator, covered as directed.

8. **Clean work area as directed before.**
9. **Evaluate salads and work using the judging sheet and score card.**
10. **Figure the cost per serving by using the cost sheet.**

SALAD PROCEDURE SHEET--WORK EXPERIENCE V (b)
Flavored Gelatin and Fruit Salad (12 servings)

1. Follow this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   - 1 strainer
   - 1 small bowl (covered) which strainer will fit into
   - 1 mixing bowl
   - 1 saucepan
   - 1 pint liquid measuring cup
   - 1 wooden spoon
   - 1 rectangular pan (1½ inches deep)
   - 1 rubber scraper
   - 1 paring knife
   - 1 colander
   - 12 salad plates stored in refrigerator
   - 2 bun pans
   - 1 wide blade spatula

3. Assemble ingredients on tray:
   - flavored gelatin--6 oz.
   - fruit--about 2 cups
   - lettuce--2 9-oz. heads

4. Prepare gelatin mixture:
   - Drain canned fruit as directed in Work Experience III, No. 7(c).
   - Measure gelatin into mixing bowl.
   - Put water into saucepan (more than 2 cups) and bring to boil.
   - Pour boiling water into measuring cup, making certain to pour in only 2 cups.
   - From measuring cup, pour hot water into mixing bowl over gelatin.
   - Stir gelatin and water with wooden spoon until gelatin is completely dissolved.
   - Measure 2 cups cold liquid into measuring cup; use juice from canned fruit and add enough cold water to make 2 cups.
   - Pour cold liquid into hot water and gelatin.
   - Stir until completely mixed.
   - Refrigerate liquid gelatin in mixing bowl until it begins to thicken.

5. While gelatin is cooling (just before removing it from refrigerator) prepare fruit:
   - Place drained fruit into rectangular pan.
   - Spread fruit over bottom of pan so that fruit is evenly distributed.

6. Prepare gelatin and fruit in pan:
   - When gelatin has begun to thicken, remove from refrigerator.
   - Immediately pour thickened gelatin over fruit in rectangular pan using rubber scraper.
   - Return pan to refrigerator, and chill until gelatin has completely set.

7. Serving gelatin fruit salad:
   Prepare lettuce cups as directed in Salad Work Experience I, No. 4.
   Place lettuce cups on salad plates.
   Gelatin fruit salad into 12 sections of equal size (in squares or rectangles).
   With wide blade spatula, remove gelatin from pan and place on lettuce cup.
   Serve salads as soon as possible.
   If not served immediately, cover salads as directed and refrigerate.

8. Clean work area as directed.

9. Evaluate salads and work using the judging sheet and score card.

10. Figure the cost of the salads by using the cost sheet.

SALAD PROCEDURE SHEET--WORK EXPERIENCE VI
Frozen Fruit Salad (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   1 set measuring spoons
   4 liquid measuring cups
   1 set dry measuring cups
   1 scales
   wax paper
   2 small mixing bowls (pre-chilled)
   1 strainer
   1 mixing bowl which strainer fits
   1 sauce pan
   1 wooden spoon
   1 large mixing bowl (pre-chilled)
   1 French chef's knife
   1 slicing board
   1 paring knife
   1 nut chopper (if nuts are not used)
   1 mixer or rotary beater
   1 rubber scraper
   12 individual molds (1/2 cup size)
   2 bun pans
   1 colander

3. Measure and weigh and assemble ingredients on a tray:
   gelatin--1/3 oz.
   cold water--2T. plus 1 1/2 t.
   orange juice--2/3 cup
   pineapple juice--2/3 cup including juice from canned pineapple
   mayonnaise--1/3 cup
   cream--2/3 cup
   pineapple--8 oz.,canned, diced, drained
   peach slices--1 cup, canned, sliced, drained
   bananas--2/3 lb.
   marshmallows--miniature or large cut in quarters can be used, 3 Oz.
   pecans--4 oz. chopped
   maraschino cherries--3 oz.
   lettuce--2 9-oz. heads

4. Prepare gelatin:
   Put water into a small mixing bowl.
   Sprinkle gelatin over cold water.
   Allow this to soak for 10 minutes.

5. Prepare juices:
   (a) Pineapple juice:
      Drain canned pineapple as before in Work Experience III, No. 7(c).
      Allow pineapple to drain completely.
      Add additional pineapple juice if drained juice does not equal 2/3 cup.
      Pour juice into saucepan.
   (b) Orange juice:
      Measure orange juice into same saucepan with pineapple juice.
   (c) Heat juices:
      Heat juices in saucepan over medium heat until hot; do not boil.

6. Combine gelatin:
   When juices are hot, pour them into gelatin mixture in bowl.
   Stir until mixed completely using wooden spoon.

Refrigerate this mixture in bowl until gelatin is cold and begins to thicken slightly.

7. Prepare fruit:
   (a) Pineapple:
      Place drained pineapple in large mixing bowl.
   (b) Peaches:
      Drain canned, sliced peaches same as pineapple.
   (c) Oranges:
      Peel and section orange as directed in Work Experience III, No. 7(a).
      With French chef's knife on slicing board, cut orange sections in halves.
      Place in small bowl with other fruit.
   (d) Cherries:
      Measure cherries. (or weigh as directed)
      Place cherries in bowl with other fruit.
   (e) Bananas:
      Peel banana as directed before, Work Experience III, 7(e).
      With French chef's knife, slice banana lengthwise.
      Then cut banana crosswise into pieces not more than 1/4 inch thick.
      Place banana pieces in bowl with other fruit.

8. Prepare nuts and marshmallows:
   Measure nuts and marshmallows (or weigh as directed).
   Place in bowl with fruit.
   Completely stir fruits, nuts and marshmallows until completely mixed.

9. Prepare cream and mayonnaise:
   (a) Cream:
      Measure cream into small, chilled mixing bowl.
      Beat cream with electric mixer or rotary beater until soft peaks form.
   (b) Mayonnaise:
      When cream forms soft peaks, fold mayonnaise into whipped cream with rubber spatula.

10. When gelatin mixture is cold and slightly thickened, fold whipped cream and mayonnaise into gelatin mixture, using rubber spatula.

11. Combining fruits, nuts and marshmallows with gelatin:
   Fold mixed fruits, nuts and marshmallows into gelatin, whipped cream and mayonnaise mixture.
   Make sure ingredients are completely mixed; do not overmix.

12. Prepare molds:
   Place molds in bun pans.
   Measure 1/2 cup of fruit salad mixture into each mold.
   Use cart to wheel tray of molds to freezer.
   Freeze until firm.

13. Serving salads:
    Before unmolding salads, prepare lettuce cups on salad plates as directed on Work Experience II, No. 5.
    Immediately before serving unmold salads as directed in Work Experience V(a), No. 7.
    Serve salads immediately; frozen salads cannot be returned to freezer without removing lettuce.
    If salads begin to melt before they are served, do not refreeze.

14. Clean work area as directed.

15. Evaluate salads and work using the judging sheet and score cards.

16. Figure the cost of salads by using the cost sheet.

EVALUATION AND FOLLOW-UP SHEET, WORK EXPERIENCE I
Cook's Helper II

In evaluation of this type, the testing of performance and knowledge is involved. Performance testing is objective where established goals and standards are measured in terms of criteria. There are, however, other factors in performance testing when measuring workmanship; intangible aspects such as attitudes are to be also evaluated. This evaluation of performance might best be accomplished through a rating scale, check-list type of instrument. In testing knowledge, written tests which can be evaluated objectively can be used. Following are suggested rating scales for the individual and product and possible types of questions which might be used to test knowledge of the subject.

Rating Scale for Individual

	Good	Fair	Poor
Care of ingredients and salads			
Salad ingredients thoroughly washed in cold water			
Salad ingredients thoroughly drained in colander			
Salad ingredients arranged as on procedure sheet			
Mayonnaise prepared according to procedure sheet			
Salads returned to refrigerator after making			
Mayonnaise in cups returned to refrigerator and covered			
Unused ingredients returned to refrigerator			
Mayonnaise in cups placed on plates at serving time			
Unsold salads covered and refrigerated			
Unused mayonnaise returned to jar and refrigerated			
Salads served as soon as possible			
Care and use of equipment			
Equipment used for intended purpose			
Equipment rinsed as used			
Equipment checked closely for hidden food remains during washing			
Equipment rinsed as on procedure sheet			

Care and use of equipment, continued	Good	Fair	Poor
Equipment dried as on procedure sheet			
Equipment returned to designated area			
Twelve salad plates replaced in refrigerator			
Management			
Instructions followed on procedure sheet			
Equipment assembled on cart			
Ingredients assembled on tray			
Proper equipment for job is used			
Supplies returned to place as finished			
Cart used for moving several items			
Food used economically?			
Time requirements met			
Working space kept orderly			
Clean-up			
Paper or tray used to catch scraps.			
Scraps disposed of as directed on procedure sheet			
Surface areas cleaned			
counter tops			
sinks			
refrigerator			
trays			
carts			
floors			
cutting boards			
Personal care			
Clean hands and nails			
Hair net secures hair			
Uniform or apron clean			
Make-up as directed by teacher			
Personal Qualities			
Cooperates with other workers			
Controls emotions			
Accepts advice or criticism			
Adapts to new work			
Works on own with little checking; dependable			
Exercises safety habits; minimizes chance of accident			

Score Card for Salad

Appearance and condition of salad	Good	Fair	Poor
Ingredients fresh			
Ingredients crisp			
Ingredients clean			
Quality ingredients used			
Ingredients attractively arranged			
Variety of color used			
Texture varied			
Salad chilled			
Flavor of salad			
Flavors blended			
Flavor not monotonous			
Dressing complements flavors			

Suggested Test Questions--Work Experience I

In the following statements one or more words have been omitted. Write in each blank the word or words which will best complete the meaning of the statement.

1. The size of the salad portion influences (food value) and (cost).
2. The heartiness of a salad is determined by the total (calories).
3. The refrigeration of cold salads helps reduce the growth of (bacteria).
4. Fats in the salad are found in the (salad dressing).

List ways of reducing spoilage of salads.
(Refrigerate ingredients and cold salads.
Pre-chill plates
Wash hands before and during preparation
Wash equipment thoroughly
Remove spoiled parts of ingredients
Use fresh ingredients
Store foods on trays or in small containers in refrigerator
Serve salads as quickly as possible.)

List the three ways of making salads of salable quality.
(Use quality ingredients
Follow directions exactly
Arrange salads attractively)

Below on the left is a list of types of salads. Before each type is a blank line. If the type of salad is light, print L on the line; if the salad is hearty, print H on the line. If the salad might be either light or heary, pring both letters on the line.

(L) _____Appetizer salad

(H) _____Main course salad

(L) _____Accompaniment salad

(LH) _____Dessert salad

L--Light

H--Hearty

Below in the left list are substances found in food; on the right are the purposes these substances serve. Match the purpose with the substance and place the letter on the line at the left. The letters may be used more than once.

(A) _____Proteins

(D) _____Fats

(C) _____Cellulose

(C) _____Roughage

(B) _____Vitamins

A. Build body tissue

B. Regulate body processes

C. Aid digestion

D. Supply energy

The steps below are concerned with making a lettuce cup with tomato. They are arranged incorrectly. In the space to the left, number the steps in the order in which you were taught to do them.

_____Clean tomatoes
_____Set up twelve lettuce cups
_____Drain lettuce
_____Drain tomatoes
_____Slice tomatoes
_____Assemble equipment on cart
_____Wash hands
_____Assemble ingredients on tray
_____Clean work area
_____Store salads in refrigerator
_____Prepare mayonnaise in cups
_____Store mayonnaise cups in refrigerator
_____Return equipment
_____Replace salad plates in refrigerator
_____Arrange tomatoes on cups
_____Clean lettuce

What suggestion do you have of additional steps in preparing a lettuce cup with tomato?
(Return surplus ingredients to refrigerator)

This step would be added after (return equipment) .

As a further follow-up to this lesson on the lettuce cup and tomato salad, cole slaw and combination salads would be a next step. In this a combination of other vegetables and different greens would be introduced as well as the methods of mixing the ingredients. Other than the addition of new salad lessons, the teacher might ask other people to evaluate the student's performance and their products in light of the service rendered. Through evaluation by would-be customers and prospective employers, the students might gain additional work experience.

SALAD COST SHEET--WORK EXPERIENCE I

Cost of one serving

1. Price paid per head of lettuce 1.______
2. Number of heads used for 12 salads 2.______
3. Number of heads used X cost per head 3.______
4. Total cost of lettuce divided by twelve 4.______

5. Cost of tomatoes per pound 5.______
6. Number of pounds of tomatoes used for 12 salads 6.______
7. Cost of tomatoes per pound X number of pounds used 7.______
8. Total cost of tomatoes divided by twelve 8.______

9. Cost of mayonnaise per gallon 9.______
10. Number of servings in a gallon 10.______
11. Cost per gallon divided by number of servings 11.______

12. Cost of one box of #45 paper cups 12.______
13. Number of cups in a box 13.______
14. Cost of box divided by number of cups 14.______

Add answers to 4, 8, 11 and 14 to get cost of one portion 15.______

Additional costs:

How many minutes did it take you to finish 12 salads?
How much did you get paid for this time?
How might this time be shortened?

How many of your salads were sold?
If all were not sold, why do you think they were not sold?
How do unsold salads affect the cost of the sold salads?

If some of the lettuce or tomatoes were not sold, how would this affect the cost?
If some of the lettuce or tomatoes were wasted in preparation, how would this affect the cost?
If a plate were broken, how would this affect the cost?

What are other costs of maintaining a kitchen - refrigeration, use of equipment, use of cleaning supplies, etc. - would also add to the cost of the salads?

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON VEGETABLES

Sequence of work experiences:

A. Boiling vegetables:
  - I. Tuber and root vegetables--(a) Mashed Potatoes
    (b) Buttered Carrots
  - II. Leafy vegetables--Spinach
  - III. Seed and stem vegetables--Green Beans Amadine
  - IV. Strong-flavored vegetables--Cauliflower au Gratin

B. Baking vegetables:
  - V. Plain--Potatoes
  - VI. Stuffed--Acorn Squashes
  - VII. Scalloped--Egg Plant

C. Frying vegetables:
  - VIII. Pan-fried--Potatoes
  - IX. Deep-fat fried--French Fried Potatoes

Introduction:

Vegetables are important in most luncheon and dinner menus because they are low in calories, high in nutritive value, and add contrast to the meal in flavor, color and texture. Vegetables are more likely to be selected if they have kept their original color and shape. Vegetables offer many possibilities for combinations, methods of preparation and ways of serving. Vegetables are used as an accompaniment for meat in the main course of a dinner, in salads, in casseroles and in many other ways.

Work to be done:

1. Read the information sheet on vegetables.

2. Look up and write the definitions for the following words:

   paring
   nutrients
   bacteria
   soluble
   condensing
   retention
   consumptions
   retard
   simmering
   absorbent
   physiological

3. Read the information on vegetables in Guide to Modern Meals, by Shank, Fitch and Chapman, on pages 298-307.

4. Answer the study questions below:

   What are the desirable characteristics of cooked vegetables?
   When should vegetables be pared or prepared for cooking?

Why should vegetables be washed thoroughly?
Why should vegetables be cooked in as small an amount of water as possible?
Why is steaming a good method to use in cooking vegetables?
For what length of time should vegetables be cooked?
How can you bring vegetables to the boiling point quickly?
How can strong-flavored vegetables be cooked to help get rid of some of the undesirable flavor?
What can be done to help prevent white potatoes from blackening?
When cooking beets, when should they be pared?
When preparing pickled beets, when should the vinegar be added? Why?
Why should the liquid from canned vegetables be boiled before adding the vegetable?
Describe the method for cooking frozen vegetables.
What is a good way to keep vegetables that cannot be served immeiately after cooking?

5. Prepare vegetables according to procedure sheets.

6. Evaluate vegetables and work by using judging sheet (example given).

7. Figure cost of each serving of vegetables (example of cost sheet given).

VEGETABLE INFORMATION SHEET

Careful selection and preparation of vegetables contribute to their attractiveness, flavor and nutritive value.

Choosing vegetables according to nutritive value, color and texture tends to give balance to a menu.

The type of meat used in the menu in some measure determines the specific vegetable to be chosen.

The selection of one starchy vegetable and one green vegetable tends to balance the meal nutritionally.

Colorful vegetables tend to make a meal more attractive.

Paring, removing outer leaves and careful washing of vegetables aids in removing germs and sprays.

Removing and discarding dirty, tough outer leaves of vegetables such as cabbage, aids in ridding the vegetable of bacteria and reduces the required cooking time.

Washing leafy vegetables through three waters and/or washing each leaf under running water aids in removing dirt, grit and bacteria.

Scraping or thin paring of some vegetables such as new carrots and potatoes tends to reduce the loss of nutrients as well as removing bacteria and sprays.

The nutritive value of vegetables varies according to the kind of vegetable, variety, conditions of growth, stage of maturity when harvested and form of processing after harvesting.

The deeper the green and yellow color of the vegetable the higher the vitamin A content.

Fresh vegetables, especially tomatoes and potatoes and cabbage, are important sources of vitamin C.

Shredding and chopping tend to hasten the loss of vitamin C.

Tuber and root vegetables are usually good sources of starch and minerals.

Fresh vegetables harvested at the peak of maturity are likely to be good sources of nutrients.

The cooking method used is a factor affecting the nutritive content, color and texture of the vegetable.

Cooking vegetables immediately after preparation for cooking reduces the loss of nutrients and color in the vegetable.

Some of the nutrients found in vegetables--the minerals, phosphorus, calcium and iron and the water-soluble vitamins, thiamine, riboflavin, niacin and ascorbic acid--are readily dissolved in the cooking water.

Cooking vegetables in as small an amount of water as possible reduces the loss of the soluble nutrients in the vegetables.

Cooking vegetables by steaming above water or in a pressure saucepan tends to reduce the loss of nutrients.

Cutting vegetables into small pieces tends to increase the loss of nutrients from the vegetables.

Cooking vegetables for the shortest possible length of time in small lots in a shallow pan tends to reduce the losses of nutrients, flavor and color.

Bringing vegetables to a boiling point rapidly aids in maximum retention of vitamin C. This is facilitated by:

using high heat until boiling is reached.
having any water which is added hot.
covering pan.
cooking in quantities suited to utensil and source of heat.
using pan with large area of contact with source of heat.
using water or steam as cooking medium.

Overcooking of vegetables results in greater losses of nutrients and color and tends to increase strong flavors.

Using the cooking liquids in sauces, soups and other dishes results in greater retention of the nutrients for consumption.

Cooking such vegetables as onions and garlic, which contain a sulfur compound, in an uncovered pan increases the losses of the strong flavor and odor, thus reducing their unpleasant aftertaste and breath odor.

Rapid cooking for a short period of time of vegetables in the cabbage family (such as cabbage, cauliflower, broccoli, brussel sprouts, turnips) reduces the strong flavor and, for some, the uncomfortable physiological reactions.

Adding a small amount of cream of tartar midway in the cooking of potatoes aids in preventing blackening of potatoes.

Long, slow baking aids in giving potatoes a dry, mealy texture.

Acids added to vegetables during cooking tends to retard their softening. (Beets should be softened by cooking in plain water before vinegar sauces or pickling solutions are added.)

Condensing and using liquids from canned vegetables reduces nutritional losses.

Cooking frozen vegetables from the frozen stage reduces nutritional losses.

If vegetables cannot be served immediately, cooling and then reheating just before serving aids in retention of desirable characteristics.

Varying the methods of preparation and seasoning tends to increase the attractiveness and flavor of vegetables.

The addition of a sauce to a vegetable contributes to the attractiveness, nutritive value and flavor of the vegetables.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE I(a)
Mashed Potatoes (25 servings)

1. Read procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   1 vegetable brush
   1 large covered kettle
   1 large colander
   1 paring knife
   1 sink strainer
   mixing bowl for mixer
   1 mashing attachment to mixer
   1 saucepan

3. Weigh and assemble the following ingredients on a tray:
   potatoes--6 lbs.
   milk--1 - 1½ quarts
   butter--¼ lb.
   salt--11 oz.

4. Preparation:
   Fill kettle with 3 quarts of water.
   Place kettle on high heat on range.
   Cover kettle.
   Bring water to boil.
   Scrub potatoes under running cool water with vegetable brush.

5. Cooking potatoes:
   Put potatoes in boiling water.
   Cover kettle.
   Bring to rapid boil.
   Turn heat to medium temperature to keep water simmering.
   Boil 45 minutes or until tender.
   Drain water from potatoes by pouring potatoes into a large colander.

6. Peeling potatoes:
   Peel potatoes with paring knife, skinning potatoes and catching peelings in sink strainer.
   Place potatoes in mixing bowl.

7. Mashing potatoes:
   Place milk and butter in saucepan.
   Place saucepan on burner on range with heat on medium.
   Mash potatoes with mixer on low speed.
   Add salt and hot milk and butter to potatoes.
   With mixer on medium speed, whip potatoes until creamy and very light.
   Serve hot.

8. Clean work area as directed.

9. Judge product by using judging sheet.

10. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE I(b)

Buttered Carrots (25 servings)

1. Read procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:

1 saucepan with cover	1 utility bowl
1 vegetable peeler	1 cooking fork
1 vegetable brush	2 colanders
1 sink strainer	1 measuring cup
1 paring knife	1 set measuring spoons

3. Weigh and assemble all ingredients on a tray:

fresh carrots--6 lbs.	salt--1 oz.
butter--8 oz.	

4. Prepare carrots:
Scrub carrots with vegetable brush under running cool tap water.
Place in colander.
With paring knife cut off tops and roots.
With vegetable peeler rid carrots of any undersirable spots.
Place carrots in second colander.
Wash carrots under cool tap water.

5. Cook carrots:
Put 3 cups water and salt in saucepan.
Cover saucepan.
Place saucepan on range on high heat.
Cut carrots in half lengthwise.
Place carrots into boiling water.
Cover.
Heat carrots quickly to boiling point by leaving heat on high.
Turn heat to medium--maintaining boiling temperature.
Cook until carrots are tender--25-30 minutes.
If water boils away, add small amount of hot water.
Remove from heat.
If any liquid remains, drain, saving liquid.
Add butter.
Set aside, off heat until time to serve.
Heat quickly and serve.

6. Clean work area as directed.

7. Judge products by using judging sheet.

8. Figure cost per serving by using the cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE II
Fresh Spinach (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
1 large bowl
1 colander
1 sink strainer
1 saucepan with lid
1 paring knife
1 cooking fork
1 set measuring spoons

3. Weigh and assemble the following ingredients on a tray:
fresh spinach--5 lbs.
salt--½ oz.
butter--11 oz.

4. Prepare spinach:
Place spinach in large bowl.
Cover spinach with cool water.
Wash each leaf of spinach quickly under running tap water.
Tear away and discard into sink strainer any discolored or wilted leaves of spinach or any coarse stems.
Place washed leaves of spinach into colander as they are washed.
When all spinach has been washed, remove from colander and place in saucepan.

5. Cook spinach:
Cover saucepan with tight-fitting lid.
Place saucepan on range on burner fitting bottom of saucepan.
Turn heat on high.
Bring to boiling heat.
Reduce heat to low to maintain boiling temperature.
Remove cover from saucepan.
Stir spinach with cooking fork to mix spinach for more even cooking.
Boil 10 minutes.
If water from leaves is insufficient, add boiling water to depth of ¼ inch in saucepan.

6. Clean work area: While spinach is cooking, wrap and discard spinach from sink strainer. Clean remaining work area as directed.

7. Prepare spinach for serving:
Remove spinach from heat.
Add salt and butter.
Toss lightly with cooking fork to mix.
Serve immediately.
If not served immediately, set to one side; reheat when time to serve.

8. Judge product by using judging sheet.

9. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE III
Green Beans Amadine (Canned) (25 servings)

1. Read procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   1 saucepan
   1 skillet
   1 measuring cup
   1 set measuring spoons
   1 cooking spoon

3. Assemble the following ingredients on a tray:
   whole green beans--1 no. 10 can
   slivered almonds--1 cup
   butter--12 oz.
   salt--1 oz.

4. Prepare green beans:
   Open can of green beans.
   Drain liquid from beans into saucepan.
   Place saucepan on range. Do not cover.
   Turn burner on range on high heat.
   Boil until slightly less than half of liquid remains. Set to one side.

5. Prepare almonds:
   Put butter in skillet.
   Place on range over medium heat.
   Melt butter.
   Add almonds.
   Cook until almonds are lightly browned.
   Stir almonds occasionally with cooking spoon.
   Set to one side.

6. Combine ingredients for serving:
   Just before serving:
      Add beans to liquid.
      Place saucepan on range with heat on high.
      Heat beans thoroughly and quickly.
      Add almonds.
      Mix lightly with cooking spoon.
   Serve immediately.

7. Clean work area as directed.

8. Judge product by using judging sheet.

9. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE IV
Cauliflower Au Gratin (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   - 1 paring knife
   - 1 large mixing bowl
   - 1 cooking pot with cover
   - 1 colander
   - 1 double boiler with cover
   - 1 scales
   - 1 wooden spoon
   - 1 utility pan with cover
   - 1 grater
   - 1 rubber scraper
   - wax paper

3. Weigh or measure and assemble on a tray the following ingredients:
   - cauliflower--4 medium-size heads
   - milk--1 quart
   - butter--4 oz.
   - flour--1/2 cup
   - salt--1 oz.
   - pepper--dash
   - cheese--2 cups grated Cheddar

4. Clean cauliflower:
   With sharp knife remove all outer green leaves from heads of cauliflower.
   Wash heads of cauliflower under running cool water.
   With paring knife cut flowerlets from heads of cauliflower.
   Check each piece for any discolored or undesirable part and remove with paring knife.
   Place cauliflower in mixing bowl.
   Cover cauliflower with cold water and add 1 teaspoon salt.
   Put all waste in can.

5. Prepare cooking pot:
   Fill cooking pot with 2 quarts of water.
   Place pot on range on burner the size of the bottom of the pan.
   Turn the heat under the burner on high.
   Add 1 teaspoon salt to the water.
   Cover pot.
   Bring water to a rapid boil.

5. Cook cauliflower:
   Pour cauliflower which has been soaking in a colander. Drain.
   Add cauliflower to rapidly boiling water.
   Cover pot until the water starts to boil again.
   Remove cover.
   Reduce heat to a temperature to keep cauliflower simmering.
   Set timer for 15 minutes.

6. Prepare sauce:
   Fill bottom of double boiler 2/3 full of water. Set aside.
   Put butter in top of double boiler.
   Place top of double boiler on range with burner on medium heat until butter melts.
   Remove butter from heat.
   Place bottom of double boiler on burner.

Add flour, salt and pepper to butter in top of double boiler.
Stir with wooden spoon until all flour is blended.
Add 1/2 cup of milk. Stir until mixture is smooth.
Add another 1/2 cup of milk. Stir until mixture is smooth.
Add remainder of milk. Stir until smooth.
Place top of double boiler over water simmering in bottom of double boiler. If water is boiling too rapidly, reduce heat.
Cover. Set timer for 10 minutes.
Stir with wooden spoon about every two minutes.
While sauce is cooking, prepare cheese if not already grated.
Grate cheese holding grater over wax paper.
At end of 10 minutes cooking period, add grated cheese to sauce.
Stir until well blended.
Hold sauce, if necessary, covered over hot, not boiling, water.

7. Serve cauliflower au gratin:
   As soon as cauliflower has cooked until tender, drain any remaining water.
   Place drained flowerlets of cauliflower in utility pan.
   Cover with cheese sauce. Use rubber scraper to remove cheese sauce.
   Cover pan.
   Immediately before serving, place pan in oven long enough to heat thoroughly (about 10 minutes).
   Note: cauliflower may be covered with buttered bread crumbs before heating in oven.

8. Clean work area as directed.

9. Evaluate by using judging sheet.

10. Figure cost per serving of cauliflower au gratin using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE V
Baked Potato (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble on a cart the following equipment:
   1 vegetable brush
   1 colander
   paper toweling
   1 utility pan
   2 large shallow baking pans
   1 sharp knife
   wax paper

3. Assemble on a tray the following ingredients:
   baking potatoes, uniform in size--25
   unsalted fat
   locate butter in refrigerator

4. Prepare potatoes:
   Start oven at 375°F.
   Hold potatoes under cool, running water and scrub thoroughly with vegetable brush.
   Drain potatoes in colander.
   Dry potatoes with paper toweling. Place in utility pan.
   Rub skin of potatoes with fat by dipping a crushed 6-inch square of wax paper into fat and rubbing over entire surface of potato.
   Place potatoes in shallow baking pans. Do not overcrowd.
   Place baking pans of potatoes in oven.
   Set timer for 1 hour.
   Test potatoes for doneness (feel soft when squeezed gently).

5. Serve potatoes:
   Remove from oven when done.
   Slash top of potatoes with a sharp knife in an X.
   Gently squeeze potatoes to free steam.
   Add pat of butter to opening.
   Serve immediately--1 potato per serving.

6. Clean work area as directed while potatoes are baking.

7. Evaluate by using judging sheet.

8. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE VI
Stuffed Acorn Squash (24 servings)

1. Read the procedure sheet, section by section, as you work.

2. Collect on a cart the following equipment:

1 French chef's knife
paper towels
2 shallow baking pans
1 wooden chopping board
1 liquid measuring cup
1 colander
1 grater
2 mixing bowls to mixer
1 potato masher
1 rubber scraper
1 masher attachment to mixer
1 blender attachment to mixer
1 large spoon
1 scales
wax paper

3. Weigh or measure and assemble the following ingredients on a tray:

acorn squashes--12
butter--8 oz.
salt--1 oz.
pepper--½ teaspoon
onion--2 small
green pepper--1 medium
dried bread crumbs--3 lb.
grated Cheddar cheese--3 lb.

4. Prepare squashes:

Turn on oven. Set temperature at 400°F.
Wash squashes under running water thoroughly.
With French chef's knife cut squashes in halves lengthwise.
Remove seeds and stringy portions on paper towel and place in waste can.

5. Bake squashes:

Place squashes, cut side down, in shallow baking pan.
Pour water into pan until ½ inch deep.
Place in oven.
Set timer for 30 minutes.

6. Prepare ingredients for stuffing:

For the onion:
  With chef's knife cut a small slice from each end of onion and remove outer layers unfit to eat.
  Wash under running water. Place in colander.
  Move drained onions to wooden chopping board.
  With French chef's knife, chop into small pieces.
  Place in mixing bowl of mixer.
For green pepper:
  Wash pepper thoroughly.
  Cut pepper in half with chef's knife.
  Remove seeds and inner core onto paper toweling.
  Place waste in can.
  Wash green pepper under cool, running water. Place in colander.
  Place pepper on wooden chopping board.
  With French chef's knife, chop into small pieces.
  Place in mixing bowl with onion.
For the cheese:
  Grate cheese, if not already grated.

Place grater over wax paper.
Rub cheese over grater until all of cheese is in small pieces.
Add cheese to mixing bowl with onion and pepper.

7. Mix stuffing:
   To bowl containing onion, pepper and cheese, add butter, bread crumbs, salt and pepper.
   Mix lightly with mixer on low speed.

8. Mash squash pulp:
   Remove squash from oven.
   Reset oven temperature to 350°F.
   Drain any water left in baking pans. Save baking pans to use again.
   Scoop out center of baked squashes with large spoon, leaving shells, about 1/4 inch thick.
   Put squash pulp into second mixing bowl.
   Mash thoroughly with mixer on low speed first and then on medium speed.

9. Combine squash and stuffing ingredients:
   Remove mixing bowl containing squash pulp and mashing attachment from mixer.
   Reattach blender attachment to mixer.
   With rubber scraper add squash pulp to mixing bowl containing stuffing ingredients.
   Mix thoroughly with mixer on low speed.

10. Bake stuffed squash:
    Pile mixture into squash shells.
    Place stuffed squash shells in baking pans.
    Place pans in oven.
    Set timer for 25 minutes.
    Serve hot.

11. Clean working area as directed.

12. Judge product by using judging sheet.

13. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE VII
Scalloped Eggplant (25 servings)

1. Read the procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   - 1 paring knife
   - 1 utility bowl
   - 1 colander
   - 1 chopping board
   - 1 French chef's knife
   - 1 large skillet
   - 1 wooden spoon
   - 1 small skillet
   - 1 mixing bowl
   - 1 mixing spoon
   - 2 large shallow baking dishes
   - 1 scales
   - wax paper
   - 1 metal spatula

3. Weigh or measure and assemble all ingredients on a tray:
   - eggplants--4 large
   - butter--8 oz.
   - green peppers--2
   - onions--2 large
   - salt--1½ oz.
   - pepper--¼ oz.
   - bread crumbs--4 oz.
   - tomatoes--1 no. 10 can

4. Prepare ingredients:
   For eggplant:
      Pare eggplant.
      Cut eggplant into pieces about 1 inch cubes, placing in utility bowl.
   For the green peppers:
      Wash green peppers under cool water.
      Cut in half with paring knife.
      Remove inner core and seeds from green peppers.
      Cut peppers into quarters.
      Place in colander on drain board of sink.
   For onion:
      Remove outside skin and any spoiled spots on onions with paring knife.
      Wash onions under cool running water.
      Cut onions into quarters.
      Place in colander with peppers.
   For chopping peppers and onions:
      On wooden chopping board, with French chef's knife chop pepper and onion into small pieces.
      Place onions and pepper in utility bowl.

5. Turn on oven. Set thermostat at 350°F.

6. Cook ingredients:
   Place ½ lb. butter in skillet.
   Place skillet on range with burner on medium heat.
   Melt butter.
   Add chopped green pepper and onion to melted fat.
   Cook 10 minutes, stirring with wooden spoon.
   Add eggplant, tomatoes, salt and pepper to skillet. Cover.
   Regulate temperature under skillet to keep ingredients simmering.
   Cook 15 minutes.

7. Prepare buttered bread crumbs:
   Place ¼ lb. butter in small skillet.
   Place skillet on range with burner on medium heat.
   Melt butter.
   Place bread crumbs in mixing bowl.
   Pour butter over bread crumbs.
   Mix with mixing spoon.

8. Bake:
   Place eggplant mixture in baking dishes.
   Cover with buttered bread crumbs.
   Place in oven preheated to 350°F.
   Bake 20 minutes or until bread crumbs are browned.

9. Serve:
   Remove from oven.
   Set on a wire rack to cool, if not served immediately.
   Cover until ready to serve.
   Reheat for a few minutes in oven just before serving.

10. Clean work area as directed.

11. Judge product by using judging sheet.

12. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE XIII
Pan-fried Potatoes (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   1 vegetable brush
   1 large kettle with cover
   1 paring knife
   2 utility bowls
   1 large frying pan
   1 cooking spatula

3. Assemble the following ingredients on a tray:
   potatoes--6 lbs
   oil--1 pint

4. Prepare potatoes:
   Scrub potatoes with vegetable brush under cool water.
   Place in large cooking kettle.
   Cover potatoes with water.
   Place kettle of potat es on range.
   Cover kettle.
   Turn heat on high.
   When potatoes start boiling, turn heat down to maintain a simmering temperature. Cook for 30 minutes.
   Remove potatoes from hot water.
   Place in large utility bowl.
   Cool.
   (Potatoes may be stored for several hours or overnight in refrigerator until needed.)

5. Frying potatoes:
   Remove skins from cooled cooked potatoes.
   Slice potatoes crosswise into 1/4 inch slices, placing sliced potatoes into second utility bowl.
   Place fry pan on range.
   Add oil.
   Heat oil until hot enough to brown a cube of bread in 40 seconds.
   Add potatoes to hot fat.
   Add salt and pepper.
   Stir occasionally.
   Fry until browned.
   With broad spatula, remove from skillet.
   Serve immediately.

7. Clean work area as directed.

8. Judge product by using judging sheet.

8. Figure cost per serving by using cost sheet.

VEGETABLE PROCEDURE SHEET--WORK EXPERIENCE IX
French-fried Potatoes (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   - 1 vegetable peeler
   - 1 paring knife
   - 1 chef's knife or french fry cutter
   - 1 utility bowl
   - 4 trays
   - 1 pair tongs
   - 2 tea towels
   - fat thermometer
   - deep fat fryer with basket
   - paper toweling

3. Assemble the following ingredients on a tray:
   - potatoes--long white, 5 lb.
   - frying fat--(Cotton seed oil, peanut oil, hydrogenated fats, lard or corn oil may be used) enough to fill deep fat kettle 2/3 full--approximately 10 lbs.
   - salt

4. Prepare deep fat:
   - Place fat in deep fat fryer or deep heavy iron kettle until the kettle is 2/3 full.
   - Turn heat on under fat.
   - Place fat thermometer on side of kettle so that bulb is in fat, but not touching the side or bottom of the kettle.
   - Heat fat to 380°F or 190°C.

5. Prepare potatoes:
   - Wash potatoes in cool water.
   - Pare potatoes using vegetable peeler. Remove any remaining eyes with paring knife.
   - Cut each potato into eighths lengthwise with chef's knife or french fry cutter.
   - Place potatoes in utility bowl.
   - Cover potatoes with cold water.
   - Let potatoes stand in cold water while you clean work area.
   - Place several layers of paper toweling on a tray. With tongs remove potatoes from bowl of cold water and place on tray until tray is covered with one layer of cut potatoes.
   - Place a triple thickness of paper toweling over potatoes and blot dry.
   - Place a clean tea towel on the second tray.
   - Move potatoes from wet paper toweling and place on tray covered with clean, dry tea towel.
   - After drying this first batch of potatoes, repeat the above process of drying the potatoes as potatoes are needed and all potatoes are used.

6. Partially fry potatoes:
   - Check thermometer for temperature of fat. Adjust heat as necessary to maintain temperature of fat at 380°F.
   - Using tongs place some of the dry potatoes into the fat.

(Avoid trying to fry too many potatoes at one time. Potatoes should have room to float in fat.)
Fry 8 minutes or until the edges of the potatoes are starting to turn brown. (Potatoes are only partially cooked at this stage.)
Lift basket from fat allowing fat to drain back into kettle.
Dump potatoes onto a third tray covered with 3 layers of absorbent paper toweling. Place on warming shelf until needed for a few minutes.
Continue frying potatoes to this stage.
Check temperature of fat before each addition of potatoes.

7. Finish frying potatoes:
Check temperature of fat. (Adding the cold potatoes to the fat will lower the temperature of the fat. Be sure to check each time you add potatoes to be sure that the fat has reached the correct temperature again.)
Heat fat to 385°F.
Add partially cooked potatoes to hot fat with tongs.
Cook 4 to 5 minutes or until potatoes are golden brown.
Lift basket and drain fat.
Dump potatoes onto fourth tray covered with absorbent paper.
Sprinkle with salt.
Serve immediately.

7. Clean work area as directed.

8. Judge product by using judging sheet.

9. Figure cost per serving by using cost sheet.

JUDGING SHEET--SPINACH

Scorecard for Cooked Spinach (Score 5 for perfection)

	1	2	3	4	5
Tender but not mushy					
Deep green color					
Free from grit					
Flavorful, well-seasoned					
Free from discolored leaves					
Free of large,touch stems					
Moist but no excess liquid					

Rating of Work

Observed rules for personal cleanliness					
Followed procedure sheet					
Observed safety precautions					
Kept work areas neat and organized					
Managed time efficiently					

COST SHEET

Cost per serving of spinach
1. Cost per pound of spinach 1._____
2. Number of servings of spinach per lb. 2._____
3. Cost per lb. divided by number of servings 3._____

4. Cost per lb. of butter 4._____
5. Cost per lb. divided by 32 (number of Tablespoons per lb.) 5._____
6. Cost per T. x no. of T. used 6._____
7. Cost of butter divided by 12 (no. of servings) 7._____

8. Add 3 and 7 for cost of one serving 8._____

Additional costs:
Number of minutes used to cook spinach
Cost of work for this time
Number of servings of spinach sold
Cost of kitchen maintenance

SUGGESTED TEST QUESTIONS--VEGETABLES

I. List 5 cooking techniques for vegetables which will help to retain the nutritive value of the vegetables.

1. (cook vegetables immediately after preparation)
2. (cook in as small amount of water as possible)
3. (cook by steaming or in pressure saucepan)
4. (don't cut into small pieces when cooking if not absolutely necessary)
5. (cook for shortest possible length of time)
? 6. (start vegetables cooking in boiling water)
a 7. (cover the pan)
8. (use cooking liquid)

II. Completion:

1. (Strong-flavored) vegetables are best cooked in an uncovered pan for the first few minutes.
2. One way in preventing blackening of potatoes is (adding cream of tartar).
3. Acids, such as vinegar, should be added to vegetables (after cooking).
4. If vegetables boil dry while cooking, add (hot water).
5. The best way to hold vegetables cooked before serving time is (cool and reheat at serving time).
6. When baked potatoes are removed from the oven, you should (Slash top and squeeze to free steam).
7. A cooked vegetable covered with a white sauce containing cheese is called (au gratin).
8. A baking dish of cooked vegetables, seasoned with other ingredients, and topped with buttered bread crumbs, is called (scalloped).

9. When frying potatoes in deep-fat, the fat should be heated to (380-385°) degrees F.
10. Vegetables should be washed thoroughly to (remove germs and sprays).

III. Write the directions for preparing a white sauce.

(See Work Experience IV, No. 6)

IV. List the desired characteristics of cooked vegetables.

(tender but not mushy)
(deep characteristic color)
(thoroughly clean)
(moist but no excess liquid)
(pleasing flavor)

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON SANDWICHES

Sequence of work experiences:

A. Plain sandwiches
   - I. Hot--Hamburgers
   - II. Cold--Ham Salad
   - III. Grilled--Cheese

B. Open-faced Sandwiches
   - IV. Hot--Beef or Pork
   - V. Appetizers--Canapes

C. Fancy or Party Sandwiches
   - VI. Rolled or Pinwheel
   - VII. Ribbon or Checkerboard
   - VIII. Club Sandwich
   - IX. Sandwich Loaf

Introduction:

In our busy country today, sandwiches have become a standard item on almost any restaurant menu. Sandwiches offer a variety of colors, flavors, textures and shapes. They range all the way from the hearty lunch box type to those that are so dainty they make only one or two bites.

Work to be done:

1. Read the sandwich information sheet.

2. Write the definitions of the following words:

   appetizers
   accompaniments
   garnishes
   simmering
   toasted
   canape
   consistency

3. Read pages 149-152 in Experience With Foods, by L. Belle Pollard; for wrapping, see pages 324-332 in Guide to Modern Meals by Shank, Fitch and Chapman; and pages 272-274, 443-448 in Your Foods Book by Florence LaGanke Harris and Rex Todd Withers.

4. Answer the study questions below:

   How are sandwiches classified?
   What nutrient is required to be in a "main dish" filling for a sandwich?
   In what ways may sandwiches be used? Give examples of each.
   Why is butter or margarine spread to the edge of the slices of bread?
   What nutrients are found in bread?
   How old should bread be for a sandwich? What is the exception?
   Why should each sandwich be wrapped individually?

5. Prepare the sequence of sandwiches according to the procedure sheets.

6. Evaluate your work and the sandwiches by using the judging sheet and score card.

7. Figure the cost per serving of the sandwiches by using the cost sheets.

SANDWICH INFORMATION SHEET

Sandwiches are classified as closed or plain, open-faced and fancy; each kind may include various types of fillings.

Plain sandwiches have two slices of bread with the filling between, either hot, cold or toasted.

Open-faced sandwiches are made with one slice of bread and filling with the filling left uncovered.

Fancy sandwiches have thin slices of bread (3/8-1/8 inch) with crusts removed and have a variety of shapes and fillings.

Sandwiches are used as the main dish, accompaniment to other foods, appetizers and as party refreshments.

Main dish sandwiches require protein food mixtures, such as: sliced luncheon meats, cheese, fish, eggs and peanut butter.

Sandwiches used as accompaniments to soups, salads or desserts are smaller and less rich in nutrients.

Party sandwiches are made from a variety of fillings with various shapes, flavors, colors and textures.

An appetizer sandwich is light, not appetite satisfying and has a variety of fillings.

Using accepted techniques aids in producing appetizing sandwiches.

Spreading a coating of soft butter or margarine (at room temperature), salad dressing or mayonnaise, peanut butter or cheese spread to the edges of bread slices helps to avoid the filling from soaking through, and to keep the bread moist.

Sandwiches served immediately (within one half-hour) need not have protective coating; these sandwiches might include hamburgers, frankfurters and hot open-faced sandwiches with gravy.

Spreading or placing the filling completely to the edge of the bread before trimming crusts contributes to more appetizing sandwiches.

Having all fillings at room temperature results in easier spreading consistency of the filling.

The nutritive value of a sandwich varies with the size of the sandwich, the type of filling, and the bread used.

The nutrients in a sandwich are directly related to the size of the sandwich.

Bread contains carbohydrates, fats, proteins, minerals and vitamins.

Sandwich fillings offer various nutrients.

Main dish fillings such as meat, cheese, eggs or fish contain protein mixtures.

Sweet fillings such as jams, jellies, honey and various other sweet mixtures supply carbohydrates.

Relish fillings including chopped vegetables mixed with mayonnaise dressing supply vitamins and minerals.

Bread is basic to any sandwich.

Bread in a sandwich gives variety in taste, flavor and food value.

Firm and fine grained bread, at least 24 hours hold, is preferred for sandwiches.

Bread substitutes, such as crackers, can be used in sandwiches.

The keeping quality of the sandwich is directly related to the wrapping and storing.

Suitable wrappings for sandwiches include wax paper, heavy cellophane, metal foil and plastic type bags.

Wrapping each sandwich aids in preventing flavors of fillings from mixing.

Storing sandwiches immediately after making at temperatures under 50°F facilitate in keeping sandwiches from 12 to 24 hours.

Sandwiches that do not contain large pieces of hard-cooked egg, mayonnaise or fresh vegetables may be wrapped in moisture proof or vaporproof paper and stored in the frozen food cabinet.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE I
Hamburgers

1. Read this procedure sheet, section by section, for making a plain sandwich.

2. Turn on the grill.

3. Assemble all equipment on a cart:
   - 1 set measuring spoons
   - 1 set measuring cups
   - 1 metal spatula
   - 1 large mixing bowl
   - 1 grill working surface near grill
   - 1 mixing fork
   - 1 small meat scale
   - 1 pancake turner or a broad-bladed spatula
   - Wrapping paper or bags for 12 sandwiches

4. Weigh or measure and assemble the following ingredients on a tray:
   - Ground Beef--3 lb.
   - Salt--3 teaspoons
   - Black Pepper--3/4 teaspoon
   - Monosodium Glutamate--3/4 teaspoon
   - Chopped raw onion or dehydrated green onion tops (optional) 3/4 cups raw or 1 teaspoon dry

5. Mix hamburger ingredients:
   Place all ingredients in the large mixing bowl.
   Mix lightly with a mixing fork until well blended.
   Portion the ingredients into 12 small balls, about 4-5 oz. each. Flatten into cakes.

6. Prepare buns:
   Open 12 hamburger buns, inside halves up, and arrange them in rows in work space by the grill. Keep matching halves together.

7. Cook hamburgers:
   Place the hamburger cakes on the heated grill with the broad-bladed spatula and brown on both sides (3 minutes on each side). Only turn hamburger once.

8. Serve hamburgers:
   After 6 minutes remove the hamburgers from the grill with the broad-bladed spatulA and place on the bottom half of the hamburger bun.
   Place the tops on the hamburgers, wrap as directed and serve immediately, within one half-hour.

Suggested garnishes for serving are: pickles; tomato catsup; mustard; tomatoes, sliced; lettuce; or onions.

9. Clean work areas:
   Care for unsold hamburgers, as directed.
   Wash, rinse, and drain in rack or place in dishwasher all used utensils or dishes.

Wipe off the meat scale with a clean damp cloth.
Wipe off grill first with a dry cloth and secondly a damp clean cloth.
Wipe the working surfaces with a clean damp cloth.
Return all preparation and cleaning utensils and supplies to the proper place.
Wipe up any spills on the floor, if necessary.

10. Evaluate the hamburger by using the judging sheet.

11. Figure cost per serving by using the cost sheet.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE II
Ham Salad Sandwich (12 sandwiches)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 set measuring cups
   2 1-cup measuring cups
   1 1-quart saucepan with cover
   1 slotted spoon
   1 colander
   1 paring knife
   kitchen towels
   1 food chopper with coarse blade
   1 large mixing bowl
   1 large mixing spoon without slots
   1 metal spatula
   1 No. 20 dipper
   1 cutting board
   1 bread knife
   wrapping paper or sandwich bags for 12 sandwiches

3. Measure and assemble all ingredients on a tray:
   ham--3 cups cooked
   pickles--4 tablespoons
   pimientos--1 1/2 teaspoon
   mayonnaise or cooked salad dressing--1/2 cup
   bread--24 slices
   lettuce--1 small head
   butter or margarine--1/2 cup (room temperature)

4. Prepare hard-cooked eggs:
   Place the eggs in the pan on range and cover with cold water; add about another inch of water above the eggs. Cover pan.
   Bring water rapidly to boiling point.
   Reduce heat so that water is just simmering and let eggs stay in simmering water for 20 minutes.
   Remove eggs from hot water with slotted spoon. Place eggs in colander.
   Let cold water run over eggs for a moment.
   Place eggs on a hard surface and tap the egg gently to crackle the shell.
   Place eggs back in saucepan and cover with cold water for about 5 minutes.
   Remove shells, starting at large end of each egg. (This method of cooking eggs helps to prevent the formation of a dark layer around the outside of the yolks. Also it may make it easier to remove shells, without having pieces of hard cooked white cling to them.)

5. Prepare the lettuce:
   Remove the outer leaves from the head if they are not good enough to eat.
   Remove all soiled spots with a paring knife.
   Remove the core of the lettuce using a circular motion.
   Put cores and waste leaves into the garbage disposer or waste can.
   Separate the leaves of the lettuce head by running cold water into the place where each core was removed and gently pulling the leaves apart.
   With a paring knife cut the heavy ribs from the lettuce leaf.
   Place the wet leaves on a towel to drain.

6. Prepare filling ingredients:
   Put ham, hard-cooked eggs, pickles and pimentos through food chopper--using coarse blade. Put all ingredients into large mixing bowl.
   Put the salad dressing or mayonnaise into the large mixing bowl with the ham mixture; combine ingredients with the large mixing spoon.

7. Prepare sandwiches:
   Spread the 24 slices of bread out flat on working space, so that similar shaped slices lie side by side.*
   With the metal spatula spread from 1 to 1½ teaspoons of softened butter or margarine on each slice of bread. (Butter or margarine should be at room temperature and spread completely to the edges of the bread.)
   With the No. 20 dipper place one dip (about ¼ cup) of filling on 12 alternate slices of bread.
   Spread the filling, with the spatula, completely to the edges of the slices of bread.**
   Place pieces of lettuce over the ham salad filling. The lettuce should not hang over the edge of the bread.
   Cover the filling and lettuce with the corresponding slice of bread.
   Stack two or three sandwiches on a cutting board and cut them all at once into the desired shape with a sharp bread knife.
   Wrap the ham salad sandwiches as directed.

8. Clean work areas as directed.

9. Evaluate the ham salad sandwich by using the judging sheet.

10. Figure the cost per serving of the sandwiches by using the cost sheet.

*Corresponding slices of bread give the sandwich even edges, and make it easier to cut and wrap.

**The filling, butter or margarine, and lettuce should be placed to the edges of the bread but not over to give the sandwich a neater appearance and to keep the sandwich from becoming dry and tasteless around the edges.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE III
Toasted or Grilled Cheese Sandwich (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 broiler rack
   1 broiler pan
   1 broad bladed spatula or turner
   1 sandwich spatula

3. Measure and assemble all ingredients on a tray:
   cheese (1/8 inch thick)--12 slices
   bread (1/4 inch thick)--24 slices
   butter or margarine, softened--1 cup

4. Prepare the sandwich:
   Toasted cheese sandwich:
   - Start broiler of oven; adjust rack for pan 3 inches from broiler.
   - Spread 12 slices of bread on broiler rack.
   - Lay slices of cheese on bread, making sure edges of cheese and bread are even.
   - Place broiler rack in broiler pan, and insert in preheated broiler so cheese is about 2 inches from heat.
   - Toast until cheese begins to melt.
   - Pull the broiler rack and pan out and quickly cover the cheese with a second slice of bread.
   - With a spatula, spread softened butter or margarine on the bread.
   - Insert the rack and pan into the broiler about 2 inches from heat and toast until lightly browned. (1-3 minutes)
   - Turn each sandwich over with a turner and spread with softened butter or margarine.
   - Toast until lightly browned.
   - Serve hot. (This type of sandwich is usually not wrapped.)

   Grilled cheese sandwich:
   - Butter both sides of each slice of bread.
   - Lay cheese on one slice of bread and top with second slice of buttered bread.
   - Place sandwich in frying pan, on griddle, or on Teflon coated griddle.
   - When underside of sandwich is golden brown, turn with a turner and grill until second side of sandwich is golden brown.
   - Cut and serve immediately.
   - If an electric sandwich grill is used, toasting or grilling of outside of top and of bottom slices goes on simultaneously as bottom and top plates of grill are heated.

5. Clean up as directed in Work Experience II.

6. Evaluate the toasted or grilled cheese sandwich by using the judging sheet.

7. Figure cost per sandwich by using the cost sheet.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE IV
Hot Meat Sandwich (12 sandwiches)

1. 1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:

1 set measuring spoons
1 liquid measuring cup
1 small meat scale
1 cutting board
1 carving knife or meat slicing knife
1 meat fork
12 dinner plates
1 fry pan
1 wooden spoon
1 gravy ladle--2 oz.
waste can or garbage disposer
meat tongs

3. Weigh or measure and assemble all ingredients on a tray:

bread--12 or 24 slices*
roast beef or pork--2 lbs.
fat--3 tablespoons
flour--3 tablespoons
salt--1 teaspoon
black pepper--1/4 teaspoon
meat stock--3 cups

4. Prepare meat and bread for sandwich:

Place the roast beef or pork on the cutting board; and with the knife and fork slice it into thin slices. (Less than 1/4 inch thick)
Place 1 slice of bread on each dinner plate.
Top bread with slices of meat, using tongs. (2-2 1/2 oz. of meat per serving) Variation: substitute roast turkey, chicken, or turkey roll for meat.

5. Prepare the gravy:

Put fat (meat drippings) into the frying pan on the range. Melt fat.
Remove frying pan from range.
Add flour to the meat drippings and stir with the wooden spoon until smooth.
Add salt and black pepper.
Add gradually, stirring constantly, 3 cups water or meat stock.
Return frying pan to range.
Cook over medium heat until smooth and thick.
After the gravy is thickened, remove from direct heat and serve hot.

6. Combine sandwich:

Pour a 2 oz. ladle of hot gravy over the sandwich and serve immediately. (2 oz. ladle = ¼ cup of gravy)
Suggested garnishes: parsley, olives, pickles, pimentos, green peppers, cranberry sauce.

7. Clean up as directed in Work Experience II.

8. Evaluate the hot meat sandwich by using the judging sheet.

9. Figure the cost per serving using the cost sheet.

*Meat may be covered with an additional slice of bread if desired. Then cover entire sandwich with gravy.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE V

Tea Sandwiches or Canapes* (Pineapple Cheese Filling) (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 set measuring cups
   1 set measuring spoons
   1 cutting board
   1 kitchen knife or shaped cookie cutter
   1 small mixing bowl
   1 wooden spoon
   1 metal spatula
   1 paring knife

3. Measure and assemble all ingredients on a tray:
   crackers (cheese type or other variety) or bread--12
   cream cheese--3 oz.
   mayonnaise--1 1/2 teaspoon
   chopped pecan meats--1/4 cup
   drained crushed pineapple--1/4 cup
   stuffed olives--4

4. Prepare the sandwich:
   Spread bread, if used, on cutting board.
   Cut slices of 1/4 inch thick bread into rounds, hearts, stars, diamonds, crescents, squares or any desired shape.
   Place cream cheese and mayonnaise in mixing bowl. Blend with the wooden spoon.
   Add the pecan meats and pineapple.
   Mix with the spatula.
   With the spatula spread the filling on crisp crackers or bread shapes and place them on the platter.
   Slice the olives with the paring knife into slices about 1/8-inch thick. Garnish each sandwich with a slice.
   Serve. (This type of sandwich may be wrapped and stored immediately after making and kept from 12 to 24 hours at temperatures under 50° C.)

Fillings: Sandwich fillings may be made of chopped meats, poultry, fish, cheese, vegetables, jellies, nuts, or fruits. One of these ingredients or a combination of them is usually mixed with mayonnaise, cooked dressing or cream cheese. If slices of meat or cheese are used for filling, the slices should be even in thickness and the same size as the bread upon which they are to be placed.

Garnishes: They should be edible and complement the sandwich in color, flavor, texture and appearance.

5. Clean up as directed in Work Experience I.

6. Evaluate the sandwich by using the judging sheet.

7. Figure the cost per serving by using the cost sheet.

*A "canape" is a very small open-face sandwich.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE VI
Rolled Sandwiches

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment needed on a cart:
   1 set measuring spoons
   1 cutting board
   1 bread knife
   1 mixing bowl
   1 wooden spoon
   2 spatulas
   wax paper or aluminum foil
   1 rubber scraper

3. Measure or weigh and assemble all ingredients on a tray:
   unsliced sandwich loaf of bread (less than 24 hours old)--1
   butter or margarine (room temperature)
   cream cheese--10 oz.
   red and green peppers--4 T. each
   ~~pimiento~~ and chopped parsley or stuffed olives

4. Prepare the bread:
   Place loaf of fresh, unsliced bread on cutting board.
   With long sharp knife (or bread knife) slice off all crusts except bottom one.
   With crust side of the loaf to the left, for right-handed persons, cut into lengthwise slices, 1/4-inch to 1/2-inch thick.

5. Prepare the filling:
   Mix cream cheese and red pepper and green pepper in mixing bowl.
   Blend all ingredients with spoon.

6. Prepare the sandwich:
   Spread each slice of bread with softened butter or margarine.
   With another spatula spread a thin layer of filling on each slice.
   Place a thin strip of pimento, and chopped parsley, or stuffed olives across the end of each slice, and roll bread around pimento as you would a jelly roll, being careful to keep sides in line.
   Wrap each roll in wax paper or aluminum foil, twisting ends securely.
   Chill several hours (3-18 hours) or overnight. Rolls may be made ahead of time, then wrapped and frozen.
   When ready to serve, place on cutting board and slice thin.

   Pinwheel sandwiches are made following the same steps as for making rolled sandwiches except the rolls are made tighter and then sliced into 1/4 to 1/2 inch slices; any filling desired may be used.

7. Clean work area as directed in Work Experience I.

8. Evaluate the rolled or pinwheel sandwiches using the judging sheet.

9. Figure the cost per serving by using the cost sheet.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE VII
Ribbon and Checkerboard

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment needed:

1 cutting board	wax paper or aluminum foil
1 bread knife	clean tea towel
2 spatulas	

3. Assemble all ingredients on a tray:
   Unsliced loaf of whole wheat bread--1
   Unsliced loaf of white bread--1
   Softened butter or margarine
   Filling for sandwiches, any desired kind
   (Suggested: hard-cooked eggs and olives, chopped with mayonnaise.)

4. Preparing the sandwich:
   Cut all crusts from an unsliced loaf of whole wheat bread and white bread. (as directed in Work Experience VI)
   Slice the loaves lengthwise into slices about ¼ to ½-inch thick.
   Spread one slice of white bread with butter and the filling.
   Place a slice of whole wheat bread on this and spread with butter and the filling.
   Place a slice of white bread on top this and spread with butter and the filling.
   Top with a slice of whole wheat bread.
   Press layers together lightly to make a compact loaf.
   Wrap the sandwich loaf in wax paper or foil and chill for several hours.
   Slice into sandwiches about 1/8 inch to 1/4 inch thick and serve.
   For checkerboard sandwiches:
   Follow the exact steps for making a ribbon sandwich. Slice the chilled ribbon sandwiches into 1/2-inch slices.
   All slices must be as uniform in thickness as possible.
   Spread filling on each slice of sandwich.
   Stack four of these slices one above the other with the stripe of bread running in opposite directions and with dark stripe above light stripe and light above dark in checkerboard design.
   Wrap in a damp cloth, place under a light-weight and put in refrigerator for several hours until firm and chilled.
   When ready to serve, cut in 1/4 to 1/2-inch slices.

5. Clean work area as directed.

6. Evaluate the ribbon or checkerboard sandwiches using the judging sheet.

7. Figure cost per serving by using the cost sheet.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE VIII
Club Sandwich (12 sandwiches)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 measuring cup
   1 fry pan or grill
   1 meat tongs
   kitchen paper towels
   1 tray
   1 paring knife
   2 cutting boards
   1 French chef's knife
   1 slicing knife
   1 toaster or broiler
   1 bread knife
   1 spatula
   wrapping paper or sandwich bags for 12

3. Weigh or measure and assemble all ingredients on a tray:
   bread--36 slices
   lettuce--1 small head
   cooked chicken breast--1 lb.
   bacon--36 slices
   tomatoes--4 medium
   softened butter or margarine--1 cup
   salad dressing

4. Prepare the bacon:
   Place the slices of bacon in the fry pan.
   Place on range on medium heat.
   Cook until bacon begins to brown and looks half cooked.
   Drain off fat as it accumulates.
   Turn bacon with tongs.
   Cook until brown on both sides.
   Place paper towels on tray.
   With the tongs remove the bacon and place on paper towel to drain.
   Set aside.

5. Prepare the lettuce:
   Remove outer leaves from each head if they are not good enough to eat.
   Remove all spoiled spots with a paring knife.
   Remove the core of the lettuce using a circular motion.
   Put cores and waste leaves into the garbage disposer or waste can.
   Separate the leaves of the lettuce head by running cold water into the place where each core was removed and gently pulling the leaves apart.
   With a paring knife cut the heavy ribs from the lettuce leaf.
   Place the wet leaves on a towel to drain.

6. Prepare the tomatoes:
   Wash each in cold water, handling carefully.
   Remove with the paring knife the stem and tip, as well as any spoiled spots.
   Assemble cutting board, tomatoes and French chef's knife.
   Hold each tomato with one hand and cut with the hand that you find more skillful; cut toward board.
   Cut each tomato into 4 or 5 slices of uniform thickness.

7. Prepare the meat:

Assemble the cutting board and sharp slicing knife.
Slice the chicken into thin slices less than ¼-inch thick.

8. Prepare the bread:
Place the bread in a toaster or in the broiler.
Brown on both sides.
Stack 3 slices of toast on the cutting board and trim the crusts off all edges with the bread knife.
Spread both sides of the center slice of bread with softened butter or margarine.
Butter only one side of the top and bottom slices.

9. Prepare the sandwich:
For each sandwich:
Cover one slice of toast, buttered side up, with 3 pieces of crisp bacon, tomato slices and the lettuce.
Cover with a second slice of toast.
Cover it with a lettuce leaf, sliced chicken.
Cover with another piece of toast.
Cut in triangles and serve while toast is warm.

10. Clean up as directed in Work Experience I.

11. Evaluate the club sandwich using the judging sheet.

12. Figure cost per serving by using the cost sheet.

SANDWICH PROCEDURE SHEET--WORK EXPERIENCE IX
Sandwich Loaf

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment needed on a cart:
   - 2 1-cup measuring cups
   - 2 sets graduated measuring cups
   - 1 cutting board
   - 1 bread knife
   - 5 sandwich spatulas
   - 1 grater
   - 4 mixing bowls
   - 1 rubber scraper
   - 1 mixing spoon
   - 1 French chef's knife
   - 1 platter
   - 1 electric mixer with whipping attachment or rotary beater
   - 1 slicing knife

3. Measure or weigh and assemble all ingredients needed on a tray:
   - unsliced loaf of bread--1
   - softened butter or margarine--1 cup
   - Pineapple Cheese Filling (see work experience IV)--1 cup
   - ham, chicken or tuna salad filling (see work experience II)--1 cup
   - cream or milk--¼ to ½ cup
   - cream cheese--1 lb.
   - carrots, grated--2
   - chopped raisins--½ cup
   - peanut butter--½ cup
   - mayonnaise--¼ cup

4. Prepare the bread:
   Place bread on cutting board.
   Remove all the crusts from the bread with the bread knife.
   Cut the bread into four lengthwise slices.
   Spread both sides of the two center slices of bread with softened butter or margarine.
   Butter only one side of top and bottom layers. (Be sure slices are well buttered; otherwise, fillings seep into the bread and make it soaked and crumbly.)

5. Prepare the vegetable filling:
   Grate the carrots on the medium size of the grater.
   Place the carrots in the mixing bowl and add the chopped raisins and peanut butter, using rubber spatula.
   Add enough mayonnaise to moisten.
   Mix lightly with mixing spoon.

6. Prepare whipped cream cheese mixture:
   Place softened cheese in mixing bowl of mixer.
   Add cream.
   Beat with mixer until well blended and light and fluffy.

7. Prepare the sandwich loaf:
   Place the bottom slice of bread, butter side up, on platter.
   Spread with the ham, turkey or chicken salad filling which has been mixed (add small amount of mayonnaise, if needed).
   Cover with a second slice of bread (buttered on both sides) and spread with the carrot-raisin filling.
   Cover with a third slice of bread (buttered on both sides) and spread with the pineapple cheese filling.
   Place last slice, buttered side down, on top of other layer.

3 of 5

Press whole loaf together gently but firmly.
Ice on all sides with the whipped cream cheese mixture.
Decorate top of loaf if desired, using pickles, olives, pimientos, green peppers or crisp greens.
Chill loaf for several hours so that loaf will be firm to slice.
Slice and serve.

8. Clean up as directed in Work Experience I.

9. Evaluate the sandwich loaf using the judging sheet.

10. Figure the cost per serving using the cost sheet.

COST SHEET--WORK EXPERIENCE I
Hamburgers

Cost of one serving:

1. Price paid per pound of hamburger 1.____
2. Number of pounds used for 12 sandwiches 2.____
3. Number of pounds used X price per pound 3.____
4. Total cost of hamburger divided by 12 4.____

5. Cost of buns per dozen 5.____
6. Number of dozens of buns used 6.____
7. Cost of buns per dozen X number of dozens used 7.____
8. Total cost of buns divided by 12 8.____

9. Add answer to 4 and 8 to get total cost of one serving 9.____

Additional questions:

What ingredients were not included in this cost sheet?
Why were they not included?
Although they were not included, how would the use of these ingredients raise the cost of sandwiches over longer periods of time? in larger quantities of sandwiches?

Additional Costs:

How many minutes did it take you to finish 12 sandwiches?
How much did you get paid for this time?
How might this time be shortened?
How many of your sandwiches were sold?
If all were not sold, why do you think they were not sold?
How do unsold sandwiches affect the cost of the sold sandwiches?
If some of the ingredients were not used, how would this affect the cost? (example bread crusts etc.)

If utensils were broken or damaged beyond use, how would this affect the cost?
What are other costs of maintaining a kitchen-refrigeration, use of equipment, use of cleaning supplies, etc.--would also add to the cost of the sandwiches?

JUDGING SHEET--SANDWICHES

Rating scale for individual's working ability

Care of ingredients and sandwiches	Good	Fair	Poor
Sandwich ingredients combined as on procedure sheet			
Bread slices spread open for applying filling			
Hot sandwiches served immediately after making			
Sandwiches stored in cool place before serving			
Unused ingredients returned to shelf, refrigerator or storage position			
Care and use of equipment			
Equipment used for intended purpose			
Equipment checked closely for hidden food remains during washing			
Equipment rinsed as on procedure sheet			
Equipment dried as on procedure sheet			
Other equipment cleaned as directed on procedure sheet			
Equipment returned to designated place			
Unused wrapping paper or sandwich bags returned to storage space			
Management			
Instructions followed on procedure sheet			
Equipment assembled as directed on procedure sheet			
Proper equipment for job used			
Ingredients assembled as directed on procedure sheet			
Supplies returned to place as finished			
Cart used for moving several times			
Food used economically:			
Salable ingredients not discarded			
Ingredients used as directed			
Other(s) ____________________			
Working space kept orderly			
Equipment used and returned to place			
Supplies used and returned to place			
Excess equipment not on counter			
Clean-up as working			
Other(s)____________________			
Clean-Up			
Paper or tray used to catch scraps			
Scraps disposed of as instructed			
Surface areas cleaned:			
Counter tops			
Sinks, Refrigerator			
Trays, Carts			
Cutting boards, floor			

SCORE CARD FOR SANDWICHES

Appearance and condition of sandwich	Good	Fair	Poor
Sandwich is not soggy or limp			
Sandwich is even on the edges			
Sandwich is not dry			
Sandwiches have matching slices of bread			
Filling spread to edges of bread			
Hot sandwiches served hot			
Flavor of Sandwich			
Flavors blended			
Flavor not monotonous			
Garnishes complement flavors			

SANDWICHES--SUGGESTED TEST QUESTIONS

Write the answer or answers to the following questions:

1. What nutrient is required to be in a "main dish" filling? (protein)

2. What four ways can sandwiches be used? (main dish, accompaniment to other foods, appetizer and party refreshments)

3. Give examples of each of these four ways? (main dish--Ham Salad, accompaniment to other foods--Grilled Cheese, appetizer--Canape, Party type--Pinwheels)

4. Give two reasons why butter is spread to the edges of the slices of bread? (Helps to avoid the filling from soaking through, Helps to keep the bread moist)

5. List the nutrients that are found in bread? (Carbohydrates, fats, proteins, minerals and vitamins)

6. How old should bread be for a sandwich? (At least 24 hours old)

7. What type of sandwich requires bread less than 24 hours old? (Rolled or pinwheel sandwiches)

8. Why should each sandwich be wrapped individually? (To prevent flavors of fillings from mixing)

9. How long can sandwiches be safely stored at temperatures under $50^{\circ}F$? (12 to 24 hours)

10. Give some examples of sandwiches that need not have a protective coating of butter spread on the bread, and tell why they do not need this coating? (Hamburgers, frankfurters, hot meat sandwiches. Any sandwich that is served immediately after making--within ½ hour.)

11. The steps below are concerned with basic sandwich making. They are incorrectly arranged. In the space to the left, number the steps in the order which you were taught to do them.

3 Assemble equipment
5 Prepare the filling
1 Wash hands
6 Clean up as directed
2 Read the procedure sheet
7 Evaluate the sandwich
4 Assemble ingredients

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON QUICK BREADS

Sequence of work experiences:

I. Pour batter--Griddlecakes
II. Drop batter--Muffins
III. Soft dough--Biscuits

Introduction:

Quick breads are very common and popular breads found in many luncheon and breakfast menus. With a little practice, a variety of quick breads can be prepared quickly and easily from common ingredients found in most kitchens. All quick breads have good food value, being high in starch content and containing other nutrients according to the ingredients used in the particular force.

Work to be done:

1. Read the information sheet on quick breads.

2. Look up and write definitions for the following words:

consistency	batter	coagulation
leavening agent	dough	dry ingredients
all-purpose flour	gluten	proteins
carbon dioxide	knead	blend

3. Read the information on quick breads, Chapter 23, pages 308-316, Guide to Modern Meals, by Shank, Fitch and Chapman.

4. Answer the study questions:

   What are quick breads?
   What are the three basic types of quick breads?
   Name an example of each type of quick bread.
   What ingredients are common to all quick breads?
   What is the purpose of each of the common ingredients in quick breads?
   What is gluten?
   How is gluten formed?
   What changes occur in quick breads during the baking process?
   Why should enriched flour be used when making quick breads?
   How should quick breads be stored?

5. Prepare the sequence of quick breads according to the procedure sheets.

6. Evaluate quick breads and work by using the judging sheet and score cards.

7. Figure the cost per serving of the quick breads by using the cost sheets.

INFORMATION SHEET - QUICK BREADS

QUICK BREADS ARE A TYPE OF BAKED PRODUCT HAVING FLOUR AS THE BASIC INGREDIENT AND A QUICK REACTING LEAVENING AGENT.

The proportion of the liquid and flour in a mixture determines the type of quick bread.

A quick bread mixture made with one part liquid to 1 or 1½ parts of flour, making a batter of a thin consistency that can be poured from the mixing bowl, is called a pour batter. (ex., griddlecakes)

A quick bread mixture made with 1 part of liquid to 2 parts of flour, making a batter of a consistency that can be lifted from the bowl with a spoon and dropped into the baking pan, is called a drop batter. (ex., muffins)

A quick bread made with 1 part of liquid to 3 parts of flour, making a soft dough so stiff in consistency that it can be molded on a floured board, is called a soft dough, (ex., biscuits)

Variation in the ingredients used in addition to the common ingredients contributes to the wide variety of quick breads.

Flour, liquid, salt and a leavening agent are ingredients common to all quick breads.

Sugar, fat and eggs are often added to quick breads.

All-purpose flour is a suitable type of flour for quick breads.

Salt is the common seasoning in quick breads.

The liquid in quick breads is often milk, but other liquids are sometimes used.

A leavening agent is the ingredient used in quick breads to make them rise during baking.

Rising during baking contributes to the tenderness and lightness of the product.

The fundamental reaction of baking powder is the baking soda reacting with an acid ingredient to form carbon dioxide.

Air beaten into eggs, steam produced from liquid, and soda combined with such acid foods as sour milk or molasses can be used to provide the leavening agent carbon dioxide.

The mixing and baking processes contribute to the formation of the meshlike structure of the bread.

Mixing flour with a liquid causes the two proteins found in flour, gliadin and glutenin, to unite and form gluten throughout the batter or dough.

Gluten becomes meshlike in structure as it forms, entraping leavening gases.

The elastic quality of gluten contributes to gluten's ability to stretch and hold the expanding gases within its meshes.

The heat from the cooking process results in the coagulation of the gluten proteins causing the gluten to become somewhat rigid and the gluten meshwork firm.

The heat of cooking the bread mixture contributes to the development of flavor and the browning of the surfaces.

All quick breads have good nutritional value.

Flour, milk, eggs, sugar and fat contribute calories.

Quick breads made with milk and eggs contribute complete proteins and some minerals and vitamins.

Quick breads made with enriched flour or whole-wheat flour contributes iron and the B vitamins.

Storing quick breads in a tightly closed container aids in preventing a rapid loss of moisture resulting in the quick breads becoming dry.

QUICK BREADS PROCEDURE SHEET--WORK EXPERIENCE I
Pour Batter--Griddle Cakes (40 4" cakes)

1. Read Procedure Sheet, section by section, as you work.

2. Assemble on a cart the following equipment:
   1 set measuring spoons
   1 metal spatula
   liquid measuring cup
   1 set dry measuring cups
   custard cup
   mixing bowl for mixer
   blender attachment for mixer
   scales with measuring pan
   large aluminum pitcher
   rubber spatula
   pancake turner
   griddle

3. Measure or weigh and assemble the following ingredients on a tray:
   Flour--2 lbs.
   baking powder--2 oz.
   salt--1 tablespoon
   sugar--7 oz.
   shortening--6 oz.
   milk--1½ quarts
   eggs--6

4. Prepare Batter:
   Place all dry ingredients (Flour, baking powder, salt, and sugar) in mixing bowl and mix with blending attachment of mixer on low speed.
   Add shortening to mixing bowl containing dry ingredients.
   With blender attachment, mix shortening into flour mixture until mixture is about as fine as cornmeal.
   Pour milk into flour mixture.
   Break eggs one at a time into custard cup; check for freshness.
   Put into flour-milk mixture.
   Mix to form a smooth batter. Do not over mix.
   Pour batter into pitcher. Clean out mixing bowl with rubber spatula.

5. Baking griddle cakes:
   When ready to bake, heat griddle.
   If not automatic thermostat, test heat of griddle. (Sprinkle drop of water on griddle. It is hot enough when water breaks into small bubbles and sputters.)
   Pour batter onto griddle until batter forms a 4" circle.
   Bake until cakes are puffed up, full of bubbles and cooked at edges, about 2 minutes.
   Turn each griddle cake.
   Bake until under side is brown, one or two minutes.
   Serve immediately.

6. Clean work area as directed.

7. Evaluate the griddle cakes and your work by using the score card and judging sheet.

8. Figure the cost per serving of the griddlecakes by using the Cost Sheet.

QUICK BREADS PROCEDURE SHEET--WORK EXPERIENCE II
Drop Batter--Muffins (50 muffins)

1. Read the procedure sheet, section by section, as you work.

2. Assemble on a cart the following equipment:
   1 mixing bowl for mixer
   1 mixing spoon
   1 rubber spatula
   1 utility bowl
   custard cups
   liquid measuring cup
   scales with measuring pan
   muffin pans for 50 muffins
   set dry measuring cups
   1 set measuring spoons
   1 metal spatula
   pastry brush
   wax paper

3. Measure or weigh and assemble the following ingredients on a tray:
   flour--8 cups (2 lbs.)
   sugar--½ cup (3½ oz.)
   baking powder--¼ cup (2 oz.)
   cooking oil--3/4 cup (6 oz.)
   salt--2 oz.
   milk--1 quart
   eggs--4

4. Prepare batter:
   Turn on oven. Set thermostat to 400°F.
   Weigh dry ingredients (flour, sugar, baking powder and salt).
   Mix together in mixer bowl.
   Measure milk; place in utility bowl.
   Break eggs into custard cup, one at a time checking for freshness; add to milk.
   Measure oil; add to egg and milk.
   Mix liquid ingredients with mixing spoon.
   Pour liquid ingredients into dry ingredients.
   Mix on slow speed until dry ingredients are just blended and batter is still rough-looking. Do not overmix.
   Grease muffin pans with small amount of cooking oil and pastry brush.
   Place 1/2 cup batter in each muffin pan or amount of batter necessary to fill 2/3 full, using measuring cup and rubber spatula.
   Place muffin pans in oven. Set timer for 25 minutes.
   Remove from oven and serve hot.

5. Clean the work area as directed.

6. Evaluate the muffins and your work by using the score card and judging sheet.

7. Figure the cost per serving of the muffins by using the Cost Sheet.

QUICK BREADS PROCEDURE SHEET--WORK EXPERIENCE II
Soft Batter--Biscuits (50 servings--100 biscuits)

1. Read procedure sheet, section by section, as you work.

2. Assemble on a cart the following equipment:
   1 mixing bowl for mixer
   1 mixing spoon
   1 rubber scraper
   pastry board
   rolling pin
   scales with measuring pan
   1 metal spatula
   2 baking sheets
   1 mixer with blender attachment
   round biscuit cutter

3. Measure or weigh and assemble the following ingredients on a tray:
   flour--5 lbs.
   baking powder--5 oz.
   salt--1 1/2 oz.
   shortening--1 lb. 4 oz.
   milk--1 3/4 - 2 quarts

4. Prepare dough:
   Turn on oven. Set thermostat at 450°F.
   Weigh dry ingredients (flour, baking powder, and salt).
   Mix together in mixing bowl.
   Weigh shortening. Add to mixing bowl.
   Blend shortening into flour mixture until mixture is about as fine as corn meal. (If no mixer, blend with pastry blender or two knives.)
   Add 1 3/4 quart milk and mix to make a soft but not sticky dough. If dough is too stiff, add remainder of the milk.)
   With rubber spatula turn dough onto well-floured board.
   Knead dough gently with floured hands about ten times.
   Roll dough lightly with floured rolling pin until it is 3/4" thick.
   Cut dough into rounds with floured round biscuit cutter.
   Lift cut biscuits with a metal spatula and place on ungreased baking sheet.
   Place biscuits 1 inch apart.
   Press remaining dough together and roll again until it is 3/4" thick.
   Cut more biscuits until all dough is used.
   Place baking sheets of biscuits in oven.
   Bake 12 minutes or to desired degree of browness.

5. Clean the work area as directed.

6. Evaluate the biscuit and your work by using the score card and judging sheet.

7. Figure the cost per serving of the biscuits by using the Cost Sheet.

COST SHEET

Cost per serving of biscuits:

1. Price per pound of flour ____________
2. No. of lbs. of flour used for biscuits ____________
3. Cost of flour used X Cost of flour per lb. ____________
4. No. of servings of biscuits made from flour used. ____________
5. Total cost of flour used divided by no. of servings of biscuits (line 3 - line 4) cost of flour per serving ____________

6. Cost per pound of baking powder ____________
7. Cost per pound of baking powder divided by 16 ____________
8. No. of oz. of baking powder used (line 8 x line 7) ____________
9. Cost of baking powder per oz. (line 8 x line 7) ____________
10. Cost of baking powder used divided by number serving--cost per serving of baking powder ____________

11. Cost of shortening per pound ____________
12. Cost per oz. of shortening (cost of lb. of shortening didided by 16) ____________
13. No. of oz. of shortening used ____________
14. Cost of shortening used (cost per oz. times no. of ~~oz. used~~--line 11 x line 12) ____________
15. Cost of shortening used divided by no. of servings equals cost per serving of shortening ____________

16. Cost of milk per quart ____________
17. No. of quarts of milk used ____________
18. Cost of milk per quart x no. of quarts used ____________
19. Cost of milk divided by number of servings = cost per serving ____________

20. Add lines 5, 10, 15 and 19 for cost per servings. (check other cost sheets for additional costs.) ____________

JUDGING SHEET—QUICK BREADS

Rating of Your Work (5 for perfection)	1	2	3	4	5
Observed rules for personal cleanliness					
Followed procedure sheet					
Assembled all needed equipment					
Assembled all ingredients before starting work					
Mixed and baked according to procedure sheet					
Observed safety precautions					
Kept work areas neat and organized					
Thoroughly cleaned work area as directed					
Managed time efficiently					
Total					
	(40 perfect)				

Score Card for Muffins (Score 1-5, 5 perfect)	1	2	3	4	5
Shape					
Symmetrical					
Slightly rounded top					
Crust					
Golden brown					
Pebbled appearance					
Crumb					
Creamy white					
Even grain					
Medium size holes but no tunnels					
Texture					
Tender					
Flavor					
Pleasing					
Total					
	(45 perfect)				

SUGGESTED TEST QUESTIONS--QUICK BREADS

Completion:

1. Biscuits are an example of the (soft dough) type of quick breads.
2. Muffins are an example of the (drop batter) type of quick breads.
3. Griddlecakes are an example of the (pour batter) type of quick breads.
4. The type of quick bread is determined by the (proportion of liquid to flour).
5. The ingredients common to all quick breads are (flour), (liquid), (salt) and (leavening agent).
6. The (leavening agent) used in quick breads causes the bread to rise.
7. The main nutritional value of quick breads is (calories).
8. It is time to turn griddle cakes when (top is full of bubbles).
9. The main cause of tunnels in muffins is (overmixing).
10. Working biscuit dough gently with the hands is called (kneading).

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON MEAT, FISH AND POULTRY

Sequence of work experiences:

A. Dry-heat Methods
  I. Roasting--Standing Rib Roast
  II. Broiling--Beef Steak
  III. Pan-broiling--Ham Slices

B. Moist-heat methods
  IV. Braising--Pork Chops
  V. Stewing or Boiling--(a) Stewed Chicken
    (b) Lamb Stew

C. Cooking in Fat
  VI. Pan-frying--Fish
  VII. Deep-fat frying--Chicken Cutlets

D. Cooked with extenders
  VIII. Baking--Meat Loaf
  IX. Casserole--Tuna and Rice Casserole

Introduction:

Meat is the food around which meals are usually planned, prepared and served. Meat occupies a central place in the meal since it contains many of the nutrients essential to health and is a food well-liked by most people. Meat is a relatively expensive item in the food budget. It is important, therefore, to recognize the need to buy meat wisely, care for it properly and prepare it so as to conserve the nutrients and develop the flavor. Meat that is carefully selected and prepared can be served in a variety of nutritious and appetizing ways to please the customers.

Work to be done:

1. Read the information sheet on meats.

2. Look up and write the definitions of the following words:

carcass
wholesale
retail
connective tissue
amino acids
coagulates
calories

3. Read in chapters 19, 20 and 21, pages 261-297, in Guide to Modern Meals, by Shank, Fitch and Chapman, the information sheet on meat, poultry and fish.

4. Answer the study questions below:

What are wholesale cuts of meat?
What are retail cuts of meat?

What determines whether a piece of meat will be tender or less-tender?
What are variety meats?
In what forms is meat available on the market? Fish? Poultry?
What is the purpose for "aging" meat?
What is cured meat?
Why is meat a very important food in meals?
How do you decide which method of cooking to use when preparing meat?
What are the moist-heat methods of cooking meats? Describe each method.
What cuts of meat should be cooked with moist heat?
What are the three dry-heat methods of cooking meats? Briefly describe each method.
How should fresh meat be stored?
How should processed meat be stored?
How long can meat be stored safely by freezing?
How should cooked meat be stored?

(b) Study the cooking terms and definitions used in cooking meat, poultry and fish.

baste - to moisten with liquid during cooking
braise - to cook slowly by moist heat
bread - to coat with crumbs
broil - to cook by direct heat
devil - to add spicy seasonings
dredge (or flour) - to dip in or sprinkle with flour
lard - to insert or lay strips of fat on surface
marinate - to let stand in a mixture of oil and vinegar or lemon juice
pan-broil - to cook in a skillet kept dry by pouring off liquid fat
pan-fry - to cook in a small amount of fat
parboil - to partially cook in water
poach - to cook in water just below the boiling point
pot roast - to cook slowly by moist heat
roast - to cook by dry heat in the oven
saute - to brown or cook in a small amount of fat
score - to make shallow cuts in surface of edges of meat
sear - to brown quickly by a short application of intense heat
singe - to burn off hairs on poultry
simmer - to cook at a low temperature
stew - to cook slowly in liquid
truss - to fasten together with skewers or string
au gratin - topped with cheese or cheese and crumbs
barbecue - cooked or served with a highly seasoned sauce
casserole - a combination of foods baked in a casserole dish
condiments - relishes, sauces and other accompaniments served with meats, poultry and fish
consomme - clear soup of two or more meat brothes highly seasoned
croquette - finely cut meat, poultry or fish, shaped, coated and deep-fat fried
drippings - the fat and juices collected in a roasting pan

filet or fillet - a boneless, long shaped piece of meat or fish
glazed - a sweet liquid frequently used on hams
roux - a smooth blend of fat and flour used for thickening
Stock - the liquid in which meat or poultry has been cooked
suet - the firm white fat of beef

5. Prepare meats according to the procedure sheets.

6. Evaluate the meats and your work by using the judging sheets and score cards.

7. Figure the cost per serving of the meats by using the cost sheets.

INFORMATION SHEET--MEATS

Dividing an animal carcass into pieces results in "cuts" of meat.

Animal carcasses are divided into large pieces referred to as wholesale cuts.

Wholesale cuts of meat are divided into smaller pieces called retail cuts.

All cuts of meats contain muscle tissue (lean), connective tissue and fat.

Cuts of meat are divided into three groups--tender, less-tender, and variety.

A smaller proportion of connective tissues tends to result in a more tender cut of meat.

The loins and ribs of beef, veal, lamb and pork and the leg of veal, lamb and pork are among the tender cuts.

The round, rump, flank and chuck of beef; the shoulder and breast of veal and lamb; and the shoulder of pork are classified as less-tender cuts.

The liver, kidney, heart, tongue and brains are examples of the variety meats.

Meat is available on the market fresh, cured, canned or frozen.

Meat just as it comes from the animal is called fresh meat.

Fresh meat is often held in the cooling rooms for several days to allow time for the "aging" process to improve the flavor and tenderness of the meat.

Meat which is treated with such materials as sugar, salt, spices and often smoke is called cured meat.

Ham, bacon, canned beef and sausages are examples of cured meats.

Canned meats are generally meat has been fully cooked and canned.

Ham, luncheon meats, dried beef, hash and stew are examples of canned meats.

Most meats, cooked or uncooked, can be frozen and kept for a period of time in a freezing chest.

Poultry and fish may be purchased fresh, frozen and canned.

All meats, poultry and fish are an excellent source of protein as well as other nutrients.

> **Meat proteins are complete proteins supplying all the essential amino acids.**
>
> **Lean meats, liver and kidneys supply large amounts of phosphorus and iron.**
>
> **All lean meat supplies niacin and riboflavin in important amounts and some thiamine.**
>
> **All meat furnishes calories, the number varying according to the fat content.**
>
> **All poultry contains proteins, fats, minerals and vitamins.**
>
> **Fish is high in protein content, minerals and vitamins, but low in carbohydrates.**

Meat is cooked to make it attractive in appearance, tender, juicy and well-flavored.

> **Cooking meat coagulates the proteins and softens the connective tissue.**
>
> **Low to moderate temperatures are used when cooking meats, poultry and fish so that the proteins will coatulate without becoming too hard.**
>
> **Cooking meats at a low temperature results in less loss of moisture and fat.**

The tenderness of a meat cut determines the choice of cooking method.

> **Less-tender cuts of meat are best cooked by the moist-heat methods of cooking.**
>
> > **Braising and cooking in liquid are the moist-heat methods of cooking meat.**
> >
> > > **Meat is braised by browning the meat, covering tightly, and cooking over very low heat.**
>
> **Tender cuts of meat containing little connective tissue may be cooked by one of the dry-heat methods.**
>
> > **Broiling, pan-broiling and roasting are the dry-heat methods of cooking meat.**
> >
> > > **Cooking meat by subjecting it to the direct heat results in broiled meat.**

Meat is pan-broiled by cooking it in a hot fry-pan without adding fat.

Large cuts of meat are roasted by placing in an uncovered pan, fat side up, in a slow oven.

Pan-frying and deep-fat frying are the two methods used for cooking meat in fat.

Meat is pan-fried when it is cooked in a small amount of hot fat.

For deep-fat frying of meat, enough fat is used to cover the meat.

To obtain maximum benefit from meat, it should be handled and stored with care.

Place fresh meat in the coldest part of the refrigerator or in the meat compartment. The temperature should be as low as possible without freezing the meat.

Unless meat is to be used on the same day it is purchased, it should be removed from the market wrapping paper and stored unwrapped or loosely wrapped in wax paper or aluminum foil.

If fresh meat is to be kept for three or more days, it should be frozen.

To freeze fresh meat, wrap it in special freezer paper or bags but not in wax paper.

Fresh meat that is frozen for longer storage should be frozen and stored at 0°F. or lower.

Store cured and ready-to-serve meats in the coldest part of the refrigerator. Keep ready-to-serve meats not longer than a week.

It is not advisable to freeze cured meats and ready-to-serve meats because the salt in the meat tends to develop rancid meat.

Canned hams should not be frozen, but should be stored unopened in the refrigerator until ready to use.

Meats which have been properly wrapped and promptly frozen under recommended freezing conditions should be stored at 0°F. or lower for periods shown below:
Beef - 6-12 months
Lamb and veal - 6-9 months
Fresh pork - 3-6 months
Ground beef and lamb - 3-4 months
Ground pork - 1-3 months

Cooked meat should be chilled rapidly, then covered and stored in the coldest part of the refrigerator.

MEAT PROCEDURE SHEET--WORK EXPERIENCE I
Standing Rib Roast or Rolled Rib Roast (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   - 1 shallow roasting pan
   - 1 rack for roasting pan (if rolled rib roast is used)
   - 1 meat thermometer
   - 2 cooking forks
   - 1 slicing knife
   - 1 cutting board
   - 1 set measuring spoons
   - 1 platter or plate
   - wax paper (use to hold small amount of measured dry ingredients until used)

3. Measure and assemble all ingredients on a tray:
   standing rib roast--8 lbs. or rolled rib roast--6 lbs.
   salt--3 teaspoons
   pepper--1/4 teaspoon

4. Turn on oven. Set oven control at 325°F.

5. Prepare meat for roasting:
   Season roast with salt, making certain that salt is distributed evenly over roast.
   Season roast in same manner with pepper.
   For standing rib roast: place meat, fat side up, in roasting pan, making certain rib bones rest on pan bottom.
   For rolled rib roast: place rack in bottom pan; place rolled roast on rack, fat side up.
   Insert meat thermometer into center of largest muscle; do not let thermometer rest in fat or touch bone.

6. Place pan with roast in preheated oven.
   Roast until thermometer shows desired internal meat temperature.

Rare:	140°F	(Approximately 2-2½ hours)
Medium	160°F	(Approximately 2½-3 hours)
Well-done:	170°F	(Approximately 3½-4½ hours)

   Remove pan with roast from oven when desired internal temperature is reached.
   Remove thermometer from roast.

7. Prepare roast for serving:
   Immediately before serving, remove roast from oven and pan to cutting board to cool slightly; use two cooking forks inserted into opposite sides of the roast.
   Place roasting pan in safe place to cool.
   Slice roast.
   For standing rib roast:
      Insert cooking fork firmly between two top ribs.
      From the far outside edge, slice across the grain toward the ribs.
      Make the slices an eighth of an inch thick.
      Release each slice by cutting close along the rib with the knife tip.

After each cut, lift the slice on the blade of the knife to the side of a platter or plate.

For rolled rib roast:

Push cooking fork firmly into roast on left side (if right-handed; into right side if left handed) an inch or two from the top.

Slice across the grain toward the fork from the far right (or left, if left handed) side.

Make slices 1/8 inch thick.

As each slice is carved, lift it to the platter or plate with the slicing knife.

Serve sliced roast immediately before it cools.

8. Clean work area as directed; store leftovers as directed.

9. Use judging sheet to evaluate roasted standing rib or rolled rib.

10. Figure cost per serving using cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE II
Broiled Beef Steak (2-3 servings per pound with bone)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 paring knife
   1 broiler pan with broiler rack
   1 6-inch square wax paper
   1 tongs
   2 pot holders

3. Assemble all ingredients on a tray:
   1-inch thick steak (sirloin, tenderloin, porterhouse, T-bone, rib)
   salt
   pepper
   unsalted shortening

4. Prepare oven:
   Adjust oven rack so that steak will be 3 inches from heat source.
   Set oven control at broiling temperature marked on dial.
   If electric range used, leave oven door partly open; close door completely if gas range is used.

5. Prepare broiler pan and rack:
   Place broiler rack on broiler pan.
   With small square (6-inch square) of waxed paper which has been crumpled, lightly grease broiler rack.
   Grease only the part of the broiler rack which will be covered with steak (s).

6. Prepare steak:
   Place steak (s) on broiler rack.
   Slash fat strip (if present) around edge of steak at 1-inch intervals to prevent curling; slash only through fat layer.
   Insert broiler rack so that the steak is 3 inches from heat source.
   Broil steak until top side is well-browned (about 1/2 of broiling time).
   Remove broiler pan with steak (s) from oven broiler, using pot holders to lift pan, so that steak (s) may be turned.
   Turn steak (s), using tongs, and return broiler pan with steak (s) to oven broiler.
   Brown steak (s) on other side for remaining one-half of broiling time.
   Use the following chart for broiling time:
   Rare: 10 minutes (total broiling time)
   Medium: 15 minutes (total broiling time)
   Well-done: 20 minutes (total broiling time)
   Remove broiler pan from oven.
   Season steak (s) with 1/3 teaspoon each of salt and pepper; sprinkle evenly on one side of steak.
   Serve broiled and seasoned steak (s) immediately after they are removed from oven broiler.
   Place broiler pan in safe place to cool.

7. **Clean work area as directed; store left-overs as directed.**

8. **Use judging sheet to evaluate steak (s).**

9. **Figure cost per serving.**

MEAT PROCEDURE SHEET--WORK EXPERIENCE III
Pan-broiled Ham Slice (4 servings)

1. Follow this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 heavy frying pan
   1 pair tongs
   1 paring knife
   1 pan for meat drippings
   1 pot holder
   1 platter or plate
   1 cutting board

3. Assemble all ingredients on a tray:
   ham slice--1 ½-inch thick (1¼ lbs.)

4. Prepare frying pan:
   Turn on burner (gas range) or unit (electric range; if heat is thermostatically controlled, set at 325°F.
   Lightly grease frying pan with a piece of the fat cut from the ham.
   Set heavy fry pan on heat so that it will be preheated.

5. Prepare ham slice:
   At 1-inch intervals around the ham slice, cut through outside edge with paring knife; cut no deeper than ¼ inch.
   With tongs, lift ham slice into preheated frying pan.

6. Pan-broil ham slice:
   After placing ham slice in preheated frying pan, pan-broil until lightly browned on one side.
   Be certain drippings from ham slice do not smoke; lower heat if this occurs.
   With tongs, turn ham slice; do not turn or puncture meat with a fork.
   As drippings accumulate in frying pan, lift pan with pot holder (holding ham slice inside pan with tongs) and drain drippings into metal pan.
   When ham slice is lightly browned on both sides, remove from frying pan with tongs to platter or plate.
   The ham slice may be turned more than once if ham slice does not appear to be done.
   When pan-broiling a ham slice ½-inch thick, pan-broil a total of 18-20 minutes.
   Turn off heat; move frying pan to safe place for cooling.
   Serve pan-broiled ham slice immediately before it cools.

7. Clean work area as directed; dispose of meat drippings as directed.

8. Use judging sheet to evaluate pan-broiled ham slice.

9. Figure cost per serving by using the cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE IV
Braised Pork Chops (12 servings)

1. Follow this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 frying pan and cover
   1 tongs
   1 pot holder
   1 paring knife
   1 pan for drippings
   1 cooking fork
   1 platter
   1 waxed paper

3. Measure and assemble all ingredients on a tray:
   pork chops--12 1-inch thick
   water--3/4 to 1 cup
   salt--1 teaspoon
   pepper--1/4 teaspoon

4. Prepare chops:
   If more than 1/4 inch of fat is present on chop edges, trim fat to 1/4 inch, using paring knife.

5. Prepare frying pan:
   Place frying pan on heat source.
   Turn on heat.
   Add several pieces of trimmed fat to skillet.
   When fat is hot, move fat over bottom of skillet with fork until entire bottom of skillet is greased.
   Remove pieces of fat. Discard.

6. Cooking pork chops:
   Using tongs, place pork chops in preheated frying pan.
   Brown pork chops on one side about 5-6 minutes.
   Turn pork chops with tongs and brown on other side about 5-6 minutes.
   Pour off excess fat, using potholder to lift frying pan.
   Sprinkle salt and pepper over chops.
   Cover frying pan.
   Cook slowly (simmer) for about one hour, or until chops are tender when tested with a fork. Add more water if necessary.
   Turn off heat.

7. Serving pork chops:
   Using tongs, place pork chops on platter; serve immediately.
   Move frying pan to safe place for cooling.

8. Clean work area as directed; dispose of waste and store left-over chops as directed.

9. Evaluate pork chops using judging sheet.

10. Figure cost per serving using cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE V(a)
Stewed Chicken (25 servings)

1. Follow this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
chicken--1 4½-5 lbs., cut into serving pieces
salt--½ teaspoon
pepper--¼ teaspoon
hot water

4. Prepare chicken:
Wash chicken pieces thoroughly under cold running water.
Place chicken pieces in saucepan.
Add enough hot water to just cover chicken.
Add salt and pepper to water.
Cover pan with lid and set pan on heat source of range.

5. Cook chicken:
Turn heat control on and allow liquid to come to a boil.
Quickly reduce heat and simmer for 2½ to 4 hours.
Simmer chicken until it is tender when tested with a fork.
Turn off heat.

6. Serving stewed chicken:
Remove chicken to hot platter, using tongs to lift chicken from broth.
If desired, dumplings or gravy may be made with broth.
Serve stewed chicken immediately or place hot platter in warming oven to keep warm while making gravy or dumplings.

7. Clean work area as directed.

8. Use judging sheet to evaluate stewed chicken.

9. Figure cost per serving using cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE V (b)
Lamb Stew (12 servings)

1. Follow this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
1 French chef's knife
1 slicing board
1 pair tongs
1 kettle with cover
1 vegetable brush
1 potato peeler
1 cooking fork
1 paring knife
1 wooden spoon
1 set measuring spoon
1 liquid measuring cup
¼ cup dry measuring cup
waxed paper

3. Measure and assemble all ingredients on a tray: (Place measured dry ingredients on squares of waxed paper.)
boneless lamb shoulder--4 lbs.
water--½ cup plus 2 quarts
potatoes--12 small
carrots--6 medium
turnip--2 small
salt--4 teaspoons
pepper--½ teaspoon
flour--¼ cup

4. Prepare lamb:
Place meat on slicing board.
With French chef's knife, cut lamb into 2-inch pieces.
In kettle, measure 2 quarts water.
Add lamb, salt and pepper to water.
Cover kettle.
Place kettle on heat source of range and turn on heat.
Bring water to a boil; immediately reduce heat so that water just simmers.
Simmer for 2 hours.

5. When lamb has simmered for one hour, start preparing vegetables:
For the potatoes:
  Thoroughly wash potatoes under cold, running water.
  Brush with vegetable brush to remove all soil.
  Using potato peeler, thinly peel skin from potatoes, using a circular motion.
  With paring knife, cut out any remaining eyes.
For the carrots:
  Wash and brush carrots same as potatoes.
  If carrots are discolored, use potato peeler to thinly remove outside layer.
  Using chef's knife on slicing board, cut carrots into lengths one-inch in length.
For the turnips:
  Wash and brush turnip same as potatoes and carrots.
  Pare thinly with paring knife.
  Using French chef's knife, dice turnip.
For onions:
  Cut very small slice off each end of onion (using French chef's knife).
  Carefully peel off outer layer of skin.
  Wash under cool running water.
  Do not cut onions into pieces; leave whole.

6. **When lamb has simmered for 2 hours, add all prepared vegetables to simmering lamb; recover kettle.**

7. **Continue simmering lamb and vegetables for 45 minutes or until vegetables are tender when tested with a fork.**

8. **Add thickening:**
   Mix flour and ½ cup cold water until a smooth paste is formed.
   Stir flour-water mixture very slowly into stew; bring liquid to a boil, stirring constantly with wooden spoon for 1 minute.
   Serve lamb stew immediately.

9. **Clean work area as directed; store unused lamb as directed.**

10. **Evaluate stew using judging sheet.**

11. **Figure cost per serving using cost sheet.**

PROCEDURE SHEET--WORK EXPERIENCE VI
Pan-fried Fish (12 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 heavy frying pan
   1 pair tongs
   2 shallow rectangular dishes
   1 table fork
   1 set measuring spoons
   1 set measuring cups
   1 rubber scraper
   1 platter
   1 waxed paper

3. Measure and Assemble all ingredients on a tray:
   dressed fish--4½ lbs., cut into serving pieces
   salt--1½ teaspoons
   eggs--3
   water--3 tablespoons
   corn meal--2 cups
   shortening--1 cup

4. Prepare corn meal and egg mixture:
   Measure corn meal into one rectangular dish.
   Into second retangular dish, break eggs; beat slightly with table fork.
   Add water; beat again.

5. Prepare frying pan and shortening:
   Put shortening into frying pan.
   Place frying pan on range.
   Turn on heat (burner or unit) on range.
   If thermostat present, set at 350° F.
   Fat should be ¼-inch deep in pan; if necessary add enough shortening to secure correct depth.
   Make certain throughout cooking time that melted shortening never smokes; if smoking occurs, reduce heat.

6. Prepare fish while shortening is heating:
   Using tongs, place fish on waxed paper covered tray.
   Sprinkle fish on one side with salt.
   Turn fish with tongs.
   Sprinkle second side with salt.
   Using tongs, dip fish in egg-water mixture, and then coat in corn meal.
   Place fish in hot shortening, still using tongs.
   Be certain to keep heat low enough so shortening does not smoke.
   Fry fish on one side 5 minutes or until golden brown.
   Using tongs, carefully turn fish; cook on second side until golden brown; cooked fish will flake easily when tested with a fork.
   Serve fried fish immediately without cooling.

7. Clean work area as directed; dispose of used shortening as directed.

8. Use judging sheet to evaluate fried fish.

9. Figure cost per serving of the fried fish by using the cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE XII
Deep-fat Frying--Chicken Cutlets (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   - 1 food chopper with coarse blade
   - 1 flat pan to fit under food chopper
   - 1 scales with measuring pan
   - wax paper
   - 1 2-cup liquid measuring cup
   - 1 1-cup liquid measuring cup
   - 1 2-quart saucepan
   - 1 wooden spoon
   - 1 custard cup
   - 1 large mixing bowl
   - 1 2-cup dry measure
   - 1 egg beater
   - 1 large mixing spoon
   - 2 small utility bowls
   - 1 No. 12 dipper
   - 1 metal spatula
   - 2 flat utility pans
   - brown absorbent paper
   - 1 deep fat kettle
   - 1 fat thermometer
   - 1 slotted spoon

3. Measure and assemble the following ingredients on a tray:
   - cooked chicken--3 lbs.
   - chicken broth--1 cup
   - milk--1 cup
   - chicken fat or butter--6 oz.
   - flour--3 oz.
   - salt--1 oz.
   - eggs--6
   - cracker crumbs--2 cups
   - frying fat--2 gallons

4. Prepare white sauce:
   Put chicken fat in 2-quart saucepan.
   Place saucepan on low heat on range until fat melts.
   Remove saucepan from range.
   Add flour to fat.
   Stir flour into fat with wooden spoon until blended and smooth.
   Add milk gradually. Stir until blended.
   Add chicken broth. Stir.
   Return saucepan to range.
   Cook white sauce until thickened, stirring constantly.
   Remove from heat.
   Cover pan and set aside while preparing chicken.

5. Prepare chicken:
   Remove chicken from bones. Check carefully to be sure no small bones remain.
   Put chicken through food chopper catching chicken in a flat utility pan.

6. Combine ingredients:
   Break 4 eggs one at a time into a custard cup. Check for freshness.
   Place eggs in large mixing bowl.
   Beat eggs until well mixed.
   Add white sauce.
   Stir with wooden spoon until well blended.
   Add chicken and mix with mixing spoon.

7. Shaping:
   Break two eggs into custard cup. Check.
   Place egg in small utility bowl.
   Beat until well mixed.
   Place cracker crumbs into other small utility bowl.
   Line flat utility pan with wax paper.
   Measure chicken mixture with No. 12 dipper. Use metal spatula to level and help remove from dipper. Shape with hands into cutlet shape or any desired shape.
   Dip each cup of chicken into beaten eggs, then into cracker crumbs.
   Place coated chicken pieces on wax paper lined pan.
   Continue process until all chicken is used. Should make 25 chicken cutlets.
   Cover with wax paper.
   Place in refrigerator for at least 2 hours before frying.

8. Clean work area as directed.

9. Prepare fat:
   Line flat utility pan with 3 layers of brown absorbent paper. Set aside.
   Place frying fat in kettle.
   Attach fat thermometer so that bulb of thermometer is not touching kettle.
   Turn on heat under fat.
   Heat until fat thermometer reaches 370°.
   With slotted turner, remove chicken cutlet from pan and carefully drop into hot fat. Do not try to fry any more cutlets at one time than the number that can float on top of hot fat without crowding.
   Fry two minutes on one side or until underside is golden brown.
   With slotted turner, turn each cutlet.
   Fry 2 minutes on other side or until golden brown.
   Remove cutlets from fat to pan lined with absorbent paper.
   Repeat process until all cutlets are fried.
   Before adding more cutlets to fat, check temperature. If fat thermometer reads less than 360°F or more than 375°F, adjust heat and wait until fat is correct temperature.
   Serve immediately while very hot.

10. Complete cleaning of work area.

11. Judge chicken cutlets by using judging sheet.

12. Figure cost per serving using cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE VIII
Meat Loaf (12-15 servings)

1. Read the procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
mixing bowl
mixing fork
2 9x5x3" loaf pans
1 rubber scraper
1 custard cup
2 pot holders
2 2-cup measuring cups
1 set measuring spoons
1 scales with weighing pan
1 1-cup liquid measuring cup
1 French chef's knife
1 waste pan for fat
wax paper

3. Measure and assemble all ingredients on a tray:
ground beef--3 lbs.
bread crumbs--2 cups
onion--1 small
salt--4 teaspoons
pepper--1 teaspoon
milk--1½ cups
eggs--2
worchestershire sauce--¼ cup

4. Turn on oven. Set thermostat at 350°F.

5. Mix meat loaf:
Place all ingredients in mixing bowl.
Mix with fork until ingredients are thoroughly mixed but not packed. (May be mixed with blender attachment of mixer.)
With scraper push meat mixture from bowl into baking pans. Divide evenly between pans.

6. Baking meat loaf:
Place pans in center of preheated oven.
Set timer for 30 minutes.
Remove meat loaves from oven, using two pot holders.
Drain off any accumulated fat into waste pan.
Return meat loaves from oven.
Set timer for 30 minutes.
Remove from oven.
Remove meat loaves from pans onto a hot platter.
Slice into 3/4-inch thick slices and serve immediately.

7. Clean work area as directed.

8. Use judging sheet to evaluate meat loaves.

9. Figure cost per serving of meat loaf by using cost sheet.

MEAT PROCEDURE SHEET--WORK EXPERIENCE IX
Tuna and Rice Casserole (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the following equipment on a cart:
   - 1 casserole pan--12 x 10
   - 1 sieve
   - 1 cooking pot
   - 1 utility bowl
   - 1 3-quart saucepan
   - 1 wooden spoon
   - 2 mixing forks
   - 1 small saucepan
   - 1 scales with measuring pan
   - 1 set measuring spoons
   - wax paper

3. Measure and assemble the following ingredients on a tray:
   - rice--1 pound
   - salt--1/2 pound
   - butter--1/2 pound
   - flour--6 ounces
   - salt--1/2 ounce
   - pepper--1/2 teaspoon
   - milk--2 quarts
   - tuna--2 1/2 pounds
   - pimento--2 ounces
   - bread crumbs--5 ounces
   - butter--2 ounces

4. Cook rice:
   Place 4 quarts of water in cooking pot.
   Place pot on range.
   Turn heat on high.
   Place rice in sieve.
   Wash rice with running water.
   Place rice in cooking pot of boiling water.
   Regulate heat as to keep rice boiling gently.
   Cook 14 minutes or number of minutes suggested for your type of rice.
   Pour rice into sieve.
   Wash rice under running water.
   Place in utility bowl. Set aside.

5. Make white sauce:
   Place the 1/2 lb. of butter in saucepan.
   Place saucepan on range on medium heat.
   Melt butter.
   Remove from heat.
   Add flour and stir with wooden spoon until smooth.
   Add salt and pepper. Stir.
   Add 1/2 quart of milk.
   Stir until blended and smooth.
   Add remaining milk.
   Place over low heat.
   Cook until smooth and thick, stirring constantly--about 15-20 min.

6. Turn on oven. Set thermostat at 350°F.

7. Mix ingredients:
   Pour white sauce over rice.
   Add tuna and chopped pimiento.

Mix with mixing fork.
Pour mixture into casserole.

8. Prepare topping:
Place 2 ounces of butter in small saucepan.
Place pan on range over low heat.
Melt butter.
Add bread crumbs.
Mix.
Sprinkle over top of casserole.

9. Bake casserole:
Place casserole in oven.
Set timer for 45 minutes.

10. Serve:
When bread crumbs are golden brown, remove from oven.
Serve immediately.

11. Clean work area as directed.

12. Evaluate product by using judging sheet.

13. Figure cost per serving by using cost sheet.

JUDGING SHEET--ROAST

Scorecard	1	2	3	4	5
Tender but not dry and crusty					
Evenly browned color					
Flavorful, seasonings blended well					
Moist, but not greasy					
Relatively little shrinkage					
Small amount of drippings left					

Rating of work					
Observed rules for personal cleanliness					
Followed procedure sheet					
Observed safety precautions					
Kept work areas neat and organized					
Managed time efficiently					

COST SHEET

Cost per serving of roast

1. Price per lb. for roast 1._____
2. Number of servings of roast per lb. 2._____
3. Price per lb. divided by no. of servings 3._____

Additional Costs:
Number of hours and minutes used to cook roast
Cost of worker for this time
Number of servings of roast sold
Cost of kitchen maintenance

SUGGESTED TEST QUESTIONS
MEAT EXPERIENCES

Complete the missing word or words:

1. To cook meat slowly by moist heat is called (braising).

2. To cook meat by direct heat is called (broiling).

3. To cook by dry heat in the oven is (roasting).

4. To cook in a small amount of fat is referred to as (pan-frying).

5. Meat which has been treated with salt and spices is referred to as (cured meat).

6. The main nutrient found in meat is (protein).

7. To prevent steak from curling while broiling, you should (slash fat strip around edge).

8. Allowing fresh meat to hang in the cooling room for several days is referred to as (aging).

9. Three common ways of purchasing meat are (fresh), (frozen) and (canned).

10. A boneless, long shaped piece of lean meat or fish is referred to as a (filet).

Multiple choice:

1. Meat is best cooked by (a) low, (b) medium, (c) high heat. --(a)

2. The dry heat methods of cooking meat are (a) roasting, (b) braising, (c) broiling, (d) stewing, (e) pan-broiling. --(a, c, e)

3. The moist heat methods of cooking meat are (a) roasting, (b) braising, (c) broiling, (d) stewing, (e) pan-broiling. --(b, d)

4. When roasting a standing rib roast, place the meat in the roasting pan (a) fat side down, (b) fat side up, (c) either way. --(b)

5. When roasting a standing rib roast, the roast should be covered (a) all the time, (b) part of the time, (c) not at all. --(c)

6. When slicing meat for serving, slice (a) with the grain, (b) across the grain, (c) the direction which gives the largest slices. --(b)

7. Broiled steaks should be salted (a) before cooking, (b) during cooking, (c) after cooking. --(c)

8. When stewing meat, the kettle should be (a) uncovered, (b) covered, (c) either. --(b)

9. Meat (or meats) best cooked by a moist heat method is (are) (a) pork chops, (b) beef steaks, (c) fish, (d) bacon. --(a)

10. A meat (or meats) best cooked by a dry heat method is (are) (a) pork chops, (b) beef steaks, (c) fish, (d) bacon. --(b, c, d)

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON DESSERTS

Sequence of work experiences:

A. Fruit Desserts
  - I. Fresh or canned--Ambrosia
  - II. Stewed or cooked--Winter Compote
  - III. Baked--Apples

B. Milk Desserts
  - IV. Pudding--Vanilla Cornstarch Pudding
  - V. Custard--(a) Soft Custard
    (b) Baked Custard

C. Gelatin Desserts
  - VI. Plain or whipped--(a) Plain Orange Gelatin
    (b) Whipped Orange Gelatin
  - VII. Sponges--Lemon Snow
  - VIII. Custard--base gelatin--Spanish Cream
  - IX. Whipped--cream gelatin--Orange Charlotte

D. Frozen Desserts
  - X. Ices or frappes--Pineapple Ice
  - XI. Sherbets--Orange Sherbet
  - XII. Ice Cream--Vanilla Ice Cream
  - XIII. Mousses and parfaits--Strawberry Mousse

Introduction:

Desserts are very popular foods that offer a final touch of satisfaction to a good meal. Sweetness is the most common characteristic of desserts. The nutritive value of desserts varies according to the particular ingredients, however, the chief contribution of desserts to the diet is calories due to the high sugar content of most desserts. Desserts are classified into five types according to the ingredients and methods of preparation--fruit; milk; gelatin; frozen; and the biscuit, cake and pastry desserts. The cake, cookie and pastry desserts will be taken up in other sections.

Work to be done:

1. Read the information sheet on Desserts.

2. Look up and write the definitions to the following words:
consistency
coagulate
scald
curdling
pectin
cellulose
cell walls
transparent
rennin
tannins
baste
gelatin
fold
mousse
sponge
whip
fruit ice
sherbet

3. Read in Chapters 16, Eggs, pages 235-240; Chapters 13, Fruit, 206-210; Chapter 15, Milk, pages 225-231; and Chapter 32, Desserts, pages 389-398, in Guide to Modern Meals, by Shank, Fitch and Chapma man, the information on Desserts.

4. Answer the study questions below:

   Which type of desserts are best served after a light meal? a heavy meal?
   List 4 forms in which fruits are purchased?
   What does the term "processed fruit" mean?
   How are food value and appearance affected by preparation methods?
   In what way may vitamin C be preserved in fruits?
   In what two ways are the appearance of fruits changed during preparation?
   How may surface darkening of fruits be avoided?
   How does cooking change the qualities of fresh fruits.
   What nutrients are present in fruits?
   What are specific examples of fruits contributing these nutrients?
   What are the forms in which milk is available?
   What nutrients are found in milk?
   What precautions should be observed when cooking milk to prevent a film on top or curdling?

   How can the freshness of eggs be prolonged?
   Why are eggs often used in desserts?
   How should desserts containing eggs be cooked?
   What is gelatin?

   What is the effect of stirring a frozen dessert during the freezing process?
   Why are some desserts thickened before freezing?
   What are the qualities of a good frozen dessert?

5. Prepare the cakes as directed on the Procedure Sheets.

6. Evaluate the cakes and the work using the Judging Sheet and the Score Card.

7. Figure the cost of the cakes by using the Cost Sheets.

DESSERT INFORMATION SHEET

Sweet foods served at the end of a lunch or dinner are called desserts.

Desserts can be grouped according to their one common ingredient besides sugar--fruit desserts, milk desserts, gelatin desserts, flour (biscuit, cake, cookie and pastry) desserts and frozen desserts.

A simple light dessert enhances a meal containing a rich or heavy main course.

A filling or heavier dessert contributes to meals when the main course is light.

Among the simplest and easiest desserts to serve are the fruit desserts.

Several kinds of cooked dried fruits mixed together result in a compote.

Fresh fruits used singly, combined, sweetened or unsweetened are simple desserts.

Canned, frozen and cooked fruits are all used for desserts.

FRUIT

The form in which fruits are purchased determines the type of storage needed.

Fresh fruits spoil easily, requiring special handling until they are used.

Cool dry storage of fresh fruits helps to reduce spoilage.

Washing fruits before using removes dirt and spray.

Storing canned fruits in cool, dry places results in canned fruits keeping indefinitely without spoilage.

The quality of the color, flavor, and food value changes slowly when canned fruits are stored.

Canned fruits require refrigeration after opening to prevent spoilage.

Maintaining quality of frozen fruits requires storage in a freezer or freezing compartment of a refrigerator.

Using frozen fruits soon after thawing will lesson the chances of spoilage.

Dried fruits can be stored for months.

Storing dried fruits in a tightly covered container in a cool, dry place helps retard spoilage for long periods of time.

Cooked dried fruits require refrigeration to prevent them from spoiling.

The food value of fruits varies with the kind of fruit.

Vitamins are found in different amounts in different kinds of fruits.

Citrus fruits are sources of vitamin C.

Watermelon and yellow-fleshed fruits such as apricots, peaches, and cantalope are sources of vitamin A.

Although most fruits contain B vitamins, other food sources contribute larger amounts.

Minerals such as calcium, phosphorus, iron are present in fruits.

Calcium and iron are contributed by oranges, blackberries, loganberries, strawberries, blueberries and cantalope.

Dried fruits contain higher amounts of minerals than fresh fruits because the evaporation of water from the fruits leaves the minerals in more concentrated amounts.

Carbohydrates are found in the sugar, cellulose and pectin present in fruits.

Because sugar content in fruits is low, fewer calories are found in fruits.

Cellulose and pectin are found in the cell walls of fruits.

Although cellulose is not digested by the body, it supplies bulk to stimulate the digestive process.

Pectin is not digested, but its value lies in the property of causing jelly to form when fruit is cooked with sugar.

Food values and appearance of fruit is affected by preparation procedures.

Since vitamin C is present in most fruits, precautions are taken for its preservation.

Preparation of fruits shortly before using aids in reducing the loss of vitamin C due to exposure to air.

Using a short cooking time and covering the utensil helps to retain vitamin C in cooked fruits.

Storing fruits in covered containers after opening, paring or slicing aids in the retention of vitamin C.

Paring fruits thinly aids in retaining more of the vitamin C which is concentrated in larger amounts near the skin of fruits.

Appearance of fruits is affected by preparation and cooking procedures.

Cut surfaces of fresh fruits darken when exposed to the air.

Chilling and preparation immediately before serving yields more natural-looking qualities in fresh fruit.

If fruits are held after paring or slicing, lemon juice or other fruit acid sprinkled over cut fruits help retain natural color.

Cooking fresh fruits changes the qualities of fruits, depending upon the procedures used.

Cooking fruits in water aids in the cellulose in the cell walls softening and the fruits losing their original shape.

Cooking fruits in a sugar sirup retards the softening of the cellulose and aids in retaining the original shape while causing the fruits to become somewhat transparent.

MILK

Desserts containing a high proportion of milk results in nutritious contribution to the diet.

Some milk desserts are called pudding and custards.

Cornstarch, cereal products and egg added to milk desserts contribute to the thickening of the dessert.

Milk desserts containing tapioca, cornstarch or other cereal products require cooking at a fairly high temperature to cause the starch particle to swell.

Adding eggs to the milk desserts requires cooking at a low temperature, often over hot water, to coagulate the egg protein, contributing to the thickening action.

Milk contains some of most of the nutrients needed by the body.

Complete proteins containing all of the essential amino acids are found in milk.

The carbohydrate found in milk is lactose, a sugar which adds calorie values to milk.

"Milk fat" or "butter fat" in milk contributes calories as well as vitamins A and D.

Riboflavin, niacin and thiamine are other vitamins found in milk.

Before retail sale, milk is processed to produce a variety of milk products, and to put it into forms which will keep over relatively long periods of time.

Pasteurized, homogenized, certified and skim are some of the forms in which fresh milk may be purchased.

Sour milk, buttermilk, cultured buttermilk and yoghurt are forms of fermented milk found on the market.

The cream may be separated from the milk and sold in various forms according to the percentage of cream.

Milk is processed so that it may be stored for long periods of time and sold as evaporated, condensed or dried milk.

Heat, acids, rennin and tannins effect the nutrients in milk during the cooking process.

Covering milk being heated and beating to make a froth of bubbles on the surface of the milk aid in preventing the proteins, minerals and fat of the milk from forming a film on top.

The milk protein casein coagulates in the presence of an acid.

Slowly stirring an acid food, such as fruit juice, into milk and then using immediately aids in reducing the amount of coagulated casein.

Rennin added to milk results in almost immediate coagulation of the protein casein.

Making milk into a thickened sauce and cooking at a moderate temperature reduces the tendency of milk to curdle in the presence of tannins.

EGGS

The freshness of eggs is affected more by storage than the age of the egg.

The porousness of the eggs' shells affect storage requirements.

A closed carton or covered bowl prevents absorption of refrigerator odors.

Closed containers help to reduce evaporation of moisture within the egg.

If the egg is soiled, wash only immediately before use, in order to avoid absorption which would lend itself to transfer of bacteria and odors.

The position of the egg can affect quality.

Storing the egg with the large end of the egg up lessens the increase of the air space and aids in delaying deterioration.

The temperature of storage is an important determining factor of its shelf life.

Eggs will maintain their quality for approximately 3 weeks if properly refrigerated.

Eggs are a valuable source of protein, fat and some minerals and vitamins.

Relatively large amounts of complete proteins are contained in eggs.

Fat, found in egg yolk, contributes to food energy.

Iron and phosphorus are the important minerals found in egg yolks.

Eggs are one of the few sources of Vitamin D, as well as vitamin A and some B vitamins.

Eggs are used in desserts for their thickening power, their rich delicate taste and their leavening abilities.

The effect of heat on the protein of the egg causes a mixture containing eggs to thicken.

Cook egg products with low heat for a short time with moisture to keep the protein of the egg from becoming toughened.

Cooling egg products quickly after cooking helps in preventing egg dishes from overcooking.

The addition of eggs to puddings, custards, pies and cakes enhances their flavor.

Eggs are often used in desserts for leavening by incorporating air into the beaten egg, the air expanding upon heating and causing the product to rise.

Thickening liquids with gelatin results in a variety of gelatin desserts.

Thickening fruit juices with gelatin results in a plain gelatin jelly.

Whipping a partially firm plain gelatin jelly contributes to the fluffiness of the product and is called a whip.

Adding unbeaten egg whites to gelatin mixtures followed by rapid beating when partially firm results in a spongelike quality known as a sponge or snow.

Adding gelatin to soft custards results in a smooth, compact texture dessert.

A spongelike, velvety textured dessert results from adding whipped cream to a custard-base, gelatin dessert.

Frozen desserts vary from light to heavy according to their ingredients and are made either with or without stirring during the freezing process.

Freezing sweetened fruit juices results in light desserts called ices.

Freezing ices to a mushy consistency results in a dessert referred to as a frappe.

Blending fruit juices with either milk or some gelatin or egg white results in a frozen dessert referred to as a sherbet.

Using cream to the main ingredients in a frozen dessert results in an ice cream.

Rich frozen desserts made without stirring of heavy whipped cream, fruit and other ingredients is called a mousse.

Frozen desserts of high quality are firm but not hard, have a fine smooth texture and desirable flavor.

Freezing desserts quickly results in a finer ice crystals and a smoother texture.

Holding frozen desserts until serving at a temperature slightly above the temperature at which the dessert was frozen contributes to a firm but not hard consistency.

Stirring desserts while they are freezing contributes to finer crystals and a smooth dessert.

Thickening the unfrozen mixture thick enough to retain the air bubbles beaten into it contributes to a dessert having a fine texture and good consistency.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE I
Ambrosia (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the needed equipment on a cart:
   1 scales
   1 chopping board
   1 French chef's knife
   1 large bowl
   1 large mixing bowl
   1 rubber scraper
   plastic wrap

3. Weigh and assemble the ingredients on a tray:
   mandarin orange sections and juice--1 No. 2½ can
   pineapple cubes and juice--1 No. 2½ can
   coconut--12 oz.
   bananas--2 lbs.
   sour cream--1 qt.

4. Prepare fruit Ambrosia:
   Peel bananas.
   Place bananas on chopping board and dice into ½-inch cubes with French chef's knife.
   Place bananas in mixing bowl.
   Add oranges and pineapple.
   Add coconut.
   Mix with large mixing spoon.
   Add sour cream. Clean out all sour cream with rubber scraper.
   Blend cream throughout mixture.
   Cover bowl with plastic.
   Store in refrigerator for several hours before serving.

5. Clean work area:
   Store any remaining food.
   Dispose of banana peel, cans and other waste in proper receptables.
   Wash, rinse and drain or place in dishwasher all used dishes and utensils.
   Wipe work area with a damp cloth.
   Dry, if necessary, and store all equipment.

6. Evaluate your work and the Ambrosia by using the judging sheet and score card.

7. Figure cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE II
Winter Compote (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   1 scales
   1 pint measuring cup
   2 quart measuring cups
   wax paper
   4 small utility bowls
   1 paring knife
   1 juicer
   1 cutting board
   2 saucepans
   1 slotted spoon

3. Weigh or measure and assemble ingredients on a tray:
   dried prunes--1 lb.
   dried apricots--1 lb.
   fresh pears--12
   sugar--2 cups
   water--1 quart
   oranges--4
   lemons--2
   Bing cherries (pitted)--1 quart

4. Prepare compote:
   Prepare fruits:
   Put dried prunes and dried apricots in a utility bowl. Cover with cool water.
   Wash fruit and transfer to saucepan. Cover with cold water and set aside for 15 minutes.
   Put pears in utility bowl. Cover with cool water. Wash pears.
   Pare pears. Cut in half and core. Cut halves into two pieces and place in a utility bowl.
   On the cutting board cut oranges and lemons in half.
   Extract juice from orange and lemons, catching juice in small bowl.
   Cook fruit:
   Put sugar and water into saucepan.
   Place saucepan on range over high heat and bring to a boil.
   Reduce heat so that there is a gentle boiling.
   Boil 5 minutes.
   Add lemon and orange juice.
   Add quartered pears.
   Bring to boil and simmer for 15 minutes, or until pears are tender.
   Put saucepan containing dried fruit on range. Turn on heat and quickly bring to a boil.
   Reduce heat and simmer gently for 15 minutes.
   When pears are tender, add Bing cherries and juice.
   With slotted spoon, add cooked dried fruit.
   Simmer all fruits together for 5 minutes.
   Remove from heat.
   Serve warm.

5. Clean work area as directed.

6. Evaluate your work and compote by using the judging sheet.

7. Figure cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE III
Baked Apples (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the equipment on a cart:
   1 scales
   wax paper
   1 set measuring spoons
   1 metal spatula
   1 pint measuring cup
   1 paring knife
   2 large baking pans
   1 colander
   1 small utility bowl
   1 tablespoon

3. Measure or weigh and assemble ingredients on a tray:
   baking apples--25
   sugar--12 oz.
   cinnamon--1 tablespoon
   salt--1½ teaspoon
   butter--2 tablespoons
   water--2 cups

4. Prepare apples:
   Turn on oven. Set thermostat at 400°F.
   Remove stems from apples and thoroughly wash under cool running water water. Place in colander.
   With paring knife core apples and pare a strip about 2 inches wide around the stem end.
   Place cored, pared apples with pared ends up, close together in baking pans.
   Put sugar, cinnamon and salt in utility bowl. Mix.
   Put 1 tablespoon of sugar mixture into cavity of each apple.
   Put ¼ teaspoon butter on top of each apple.
   Pour water into baking pan around apples.
   Put apples into preheated oven. Set timer for 45 minutes.
   Every 10 minutes baste apples with sirup from baking pan.
   Remove from oven. Cool.
   Serve apples in individual dishes with some sirup dipped over the apple.

5. Clean work area as directed.

6. Evaluate your work and the apples by using the judging sheet.

7. Figure cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE IV
Vanilla Cornstarch Pudding (Blanc Mange) (25 4-oz. servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the equipment on a cart:
   - 1 scales
   - wax paper
   - 1 set measuring spoons
   - 1 metal spatula
   - 1 liquid measuring cup
   - 1 small utility bowl
   - 1 3-quart saucepan
   - 1 wooden spoon
   - 1 rubber scraper
   - 25 individual molds
   - 1 No. 10 dipper
   - 2 trays

3. Weigh or measure and assemble the ingredients on a tray:
   - sugar--12 oz.
   - salt--1 teaspoon
   - cornstarch--4½ oz.
   - milk--2 quarts plus 1 cup
   - vanilla--2 teaspoons

4. Prepare pudding:
   - Put 2 quarts of milk in saucepan. Set on range with burner on medium heat. Heat until hot but not boiling.
   - Put sugar, salt and cornstarch into utility bowl. Mix.
   - Add 1 cup of milk. Mix thoroughly with wooden spoon.
   - When milk is hot, gradually pour in sugar-milk mixture, stirring constantly.
   - Cook over medium heat, stirring constantly, until mixture is thick and clear--25-30 minutes.
   - Remove from heat.
   - Add vanilla. Mix.
   - Rinse molds with cold water. Do not dry.
   - Set molds on trays.
   - Dip with No. 10 dipper into individual molds.
   - Store in refrigerator until served.

5. Clean work area as directed.

6. Evaluate your work and the pudding by using the judging sheet.

7. Figure cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE V(a)
Soft Custard (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:

1 scales
wax paper
1 knife
1 set measuring spoons
1 metal spatula
2 small dishes
1 double boiler
1 mixer bowl
1 mixer beating attachment
1 rubber scraper
1 wooden spoon
1 metal spoon

3. Weigh or measure and assemble ingredients on a tray:

eggs--15
sugar--9 oz.
salt--1¼ teaspoons
milk--2½ quarts
vanilla--2½ teaspoons

4. Heat water and milk:

Fill bottom of double boiler 2/3 full of water. Place on range over heat and start bringing to a boil.
Put milk into top of double boiler. Place on range over low heat.
Heat until milk is hot and small bubbles begin to appear around sides of pan. (Remove milk from heat when it is hot even if not finished preparing egg mixture.)

5. Prepare egg mixture while water and milk are heating:

Break eggs, one at a time, with the blade of a table knife and drop into a small dish. Check for freshness.
Put eggs into mixer bowl.
Beat eggs on low speed until blended but not foamy.
Add sugar and salt. Mix.
While mixer is beating very slowly, gradually pour hot, scalded milk into egg mixture.
Transfer mixture from bowl to top of double boiler. Use rubber scraper to clean out bowl.

6. Cook custard:

Place top of double boiler over hot water in bottom of double boiler.
Reduce heat so that water simmers but does not boil.
Cook, stirring constantly with wooden spoon, until mixture thickens.
Test custard for doneness by inserting a metal spoon.
When custard coats the metal spoon, remove top of double boiler from hot water.
Place top of double boiler into sink in which you have run 3 inches of cold water.
Continue stirring custard for 5 minutes to allow it to slightly cool.
Add vanilla. Stir to mix.
Place serving dishes on trays.
Dip into serving dishes with No. 10 dipper.
Store in refrigerator until served.

7. Clean work area as directed.

8. Evaluate your work and the custard by using the judging sheet.

9. Figure the cost per serving of custard by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE V(b)
Baked Custard (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   1 scales
   wax paper
   1 set measuring spoons
   1 metal spatula
   1 2-cup liquid measuring cup
   1 3-cup saucepan
   2 small dishes
   1 table knife
   1 large mixer bowl
   1 mixer beating attachment
   1 rubber scraper
   25 custard cups
   2 large baking pans (or 4 small)
   1 No. 10 dipper

3. Weigh or measure and assemble all ingredients for custard on a tray:
   eggs--10
   sugar--10 oz.
   salt--½ teaspoon
   milk--2½ quarts
   vanilla--1 tablespoon
   nutmeg--1 teaspoon

4. Prepare custard mixture:
   Turn on oven. Set thermostat at 325°F.
   Put milk into large saucepan.
   Place on range with heat on low and heat until simmering, or until bubbles begin to appear around the sides of the pan.
   Remove milk from heat when bubbles begin to appear even if not finished with eggs.
   Break eggs, one at a time, with the blade of a table knife and drop into a small dish, putting shells into another small dish. Check for freshness.
   Put eggs into mixer bowl.
   Place mixing bowl with eggs under mixer.
   Turn on mixer and beat until eggs are thoroughly blended but not foamy.
   Stir sugar and salt into beaten eggs.
   Slowly pour scalded milk into egg stirring constantly or with mixer on very slow speed.
   Add vanilla.

5. Bake custard:
   Place custard cups in baking pans.
   Dip custard mixture with No. 10 dipper and pour slowly into individual custard cups.
   Clean out last of mixture from mixing bowl into custard cups by using a rubber scraper in a scraping motion.
   Each cup should be filled to about ½-inch from top.
   Sprinkle nutmeg over top of custard.
   Place baking pans of custard into oven.
   Pour hot water into the pans to about 3/4 inch from top of cups.
   Set timer for 45 minutes.
   Test by inserting a knife into the center of the custard. When the knife comes out clean, the custard is done.
   Remove custard from the oven and from the hot water.

Allow to cool for 5 to 10 minutes.
Place in refrigerator until served.

6. Clean work area as directed.

7. Use judging sheet to evaluate baked custard and your work.

8. Figure cost per serving by using cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE VI
Orange Gelatin (Plain or whipped) (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   1 scales
   wax paper
   2 quart measuring cups
   2 1-cup measuring cups
   1 large mixing bowl
   1 wooden spoon
   25 molds
   2 trays
   1 No. 12 dipper
   1 mixer whipping attachment
   (if making orange gelatin
   whip)

3. Weigh or measure and assemble the ingredients on a tray:
   unflavored gelatin--4 oz.
   cold water--1 cup
   boiling water--1 quart (leave
   in kettle on range until
   ready to use)
   sugar--1 lb.
   orange juice--1 quart
   lemon juice--½ cup

4. Prepare gelatin:
   Put cold water into mixing bowl.
   Sprinkle gelatin over cold water.
   Let stand for 5 minutes until gelatin is softened.
   Add boiling water.
   Stir with wooden spoon until gelatin is completely dissolved.
   Add sugar. Stir until sugar is dissolved.
   Add lemon juice and orange juice
   (Insert steps here if making orange gelatin whip.)
   Put molds onto trays.
   Dip gelatin into individual molds.
   Store immediately in refrigerator.
   Let set until gelatin is firm.
   Serve.

5. Variation for Orange Gelatin Whip:
   Follow procedure for mixing gelatin.
   After juices have been added, place bowl in refrigerator.
   Let gelatin set for 1 to 1½ hours or until the mixture is of a consistency slightly thicker than raw egg white.
   Beat with mixer on high speed until the mixture is light and fluffy.
   Proceed as previously directed.

6. Clean work area as directed.

7. Evaluate your work and the gelatin by using the judging sheet.

8. Figure the cost per serving of the gelatin using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE VII
Lemon Snow (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   1 scales
   3 1-cup measuring cups
   1 quart measuring cup
   1 set measuring spoons
   1 large mixing bowl
   1 wooden spoon
   1 mixer whipping attachment
   25 individual molds
   2 trays
   1 No. 12 dipper

3. Weigh or measure and assemble the ingredients on a tray:
   cold water--1 cup
   unflavored gelatin--4 oz.
   boiling water--1 quart (have in kettle on range until ready to use)
   sugar--1 lb. 4 oz.
   lemon juice--1 cup
   salt--1/2 teaspoon
   egg whites--8 or 7/8 cup

4. Prepare gelatin:
   Put cold water in mixing bowl.
   Sprinkle gelatin on top of cold water.
   Let stand for 5 minutes to let gelatin soften.
   Add boiling water and stir until gelatin is dissolved.
   Add sugar. Stir until dissolved.
   Add lemon juice and salt. Stir to mix.
   Place bowl in refrigerator.
   Chill for 1 to 1½ hours or until mixture is the consistency of raw egg whites.
   Remove bowl from refrigerator.
   Add unbeaten egg whites.
   Beat, with mixer at high speed, until mixture will hold its shape.
   Rinse molds with cold water. Drain but do not dry.
   Place molds on trays.
   Use dipper to fill molds to within 1/2 inch of top.
   Store trays of molds in refrigerator until mixture is firm.
   Serve as needed. Often served surrounded with soft custard.

5. Clean work area as directed.

6. Evaluate gelatin and your work by using the judging sheet.

7. Figure the cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE VIII
Spanish Cream (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   1 scales
   waxed paper
   2 cup measuring cups
   1 set measuring spoons
   2 utility bowls
   1 mixer bowl
   1 double boiler
   1 wooden spoon
   1 metal cooking spoon
   1 mixer whipping attachment
   1 rubber scraper
   2 trays
   25 individual molds
   No. 12 dipper

3. Weigh or measure and assemble the ingredients on a tray:
   cold water--1 cup
   gelatin--4 oz.
   eggs--8 separate (putting egg yolks in utility bowl and egg whites in mixer bowl)
   sugar--1/2 cup and 10 oz.
   salt--1 teaspoon
   milk--7 cups
   vanilla--1 1/2 tablespoon
   canned apricots or frozen strawberries--(locate but leave in refrigerator)

4. Prepare gelatin:
   Put cold water in a small bowl.
   Sprinkle gelatin over it and let stand to soften while you are making soft custard.

5. Prepare soft custard:
   Prepare soft custard of egg yolks, the 1/2 cup sugar, salt and milk. See Dessert Procedure Sheet, Work Experience V(a) steps 4, 5 and 6. Cook custard until mixture tests for doneness.

6. Add gelatin to custard:
   When custard coats metal spoon, remove top of double boiler from hot water. Add softened gelatin and vanilla to custard. Stir until all gelatin is dissolved.
   Set aside to cool while making meringue.

7. Make meringue:
   Beat egg whites with mixer on high speed until they form a fine foam that starts to stand in a peak when beaters are withdrawn slowly.
   Add 1/3 of sugar. Beat thoroughly.
   Add a second 1/3 of sugar. Beat until egg whites are starting to become glossy.
   Add remaining sugar. Beat until egg whites are glossy and will stand in stiff peaks.

8. Combine meringue and custard:
   Turn mixer to slow speed.
   Gradually pour custard over meringue and beat until well blended. Clean out custard pan thoroughly with rubber scraper.

9. Mold:
   Rinse molds in cold water. Drain but do not dry.
   Put mold onto trays.
   Dip Spanish Cream with No. 12 dipper and fill mold to within 1/2 inch of top.
   Store in refrigerator until firm.
   Serve garnished with canned apricot halves or defrosted frozen strawberries.

10. Clean work area as directed.

11. Evaluate your work and the Spanish Cream by using the judging sheet.

12. Figure the cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE IX
Orange Charlotte (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   - 1 scales
   - 1 pint measuring cup
   - 3 quart measuring cups
   - 2 cup measuring cups
   - wax paper
   - 1 small utility bowl
   - 1 large mixer bowl
   - 1 wooden spoon
   - 1 small mixer bowl
   - 1 whipping attachment
   - 1 rubber scraper
   - 1 6-quart mold

3. Weigh or measure and assemble ingredients on a tray:
   - unflavored gelatin--6 oz.
   - cold water--1 1/2 cup
   - hot water--2 1/2 cups (leave in kettle on range until ready to use)
   - sugar--2 lb.
   - frozen orange juice concentrate--1 lb
   - cold water--3 cups
   - lemon juice--1 cup
   - egg whites--6 or 1/3 cup
   - heavy whipping cream--3 cups (leave in refrigerator until ready to whip

4. Prepare gelatin and juice:
   Put the 1 1/2 cup cold water into utility bowl.
   Sprinkle gelatin over cold water. Set aside for 5 minutes to allow gelatin to soften.
   In mixer bowl pour the very hot water.
   Add softened gelatin. Stir until gelatin is dissolved.
   To mixer bowl add orange juice, sugar, cold water and lemon juice.
   Mix until thoroughly combined.
   Add unbeaten egg whites. Mix well.
   Put mixer bowl in refrigerator for 1 to 1 1/2 hours or until mixture is the consistency of raw egg white.

5. Prepare whipped cream:
   When mixture is almost of desired consistency, prepare cream.
   Remove cream from refrigerator.
   Pour into clean, small mixer bowl.
   Whip with mixer on high speed until cream thickens and begins to form soft peaks when beaters are lifted slowly.
   Remove whipped cream from mixer. Set in refrigerator while whipping gelatin mixture.

6. Whip gelatin mixture:
   When gelatin mixture is consistency of raw egg white, remove from refrigerator.
   Beat with mixer on high speed until mixture is light and fluffy.

7. Combine:
   Remove whipped cream from refrigerator.
   Add whipped cream to gelatin mixture.
   Blend together with mixer on low.
   Pour into mold.
   Store in refrigerator until firm (2 1/2 - 3 hours).
   Serve.

8. Clean work area as directed.
9. Evaluate your work and the Orange Charlotte by using the judging sheet.
10. Figure the cost per serving using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE X
Pineapple Ice (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   - 1 set measuring spoons
   - 3 pint measuring cups
   - 2 quart measuring cups
   - 1 cup measuring cup
   - 1 saucepan
   - 1 mixing spoon
   - 1 ice cream freezer
   - cup metal dipper
   - quart metal dipper
   - paper toweling
   - 1 tray
   - 1 large spoon

3. Weigh or measure and assemble ingredients on a tray:
   water--1½ quarts
   sugar--1½ cups
   salt--½ teaspoon
   pineapple juice--7½ cups
   lemon juice--1 cup
   coarse salt--3 lbs.
   crushed ice--25 lbs. (locate but keep frozen until ready to use)

4. Prepare pineapple juice and ingredients:
   Put water, sugar and salt in saucepan.
   Put on range on medium heat.
   Stir until sugar and salt dissolve.
   Let heat until mixture begins boiling.
   Reduce heat to maintain a gentle boiling action. Boil 5 minutes.
   Remove from heat.
   Add pineapple juice and lemon juice. Mix. Pour into freezer can of crank type ice cream freezer.
   Set aside to cool while preparing freezer.

5. Freeze:
   Assemble freezer according to manufacturer's directions for your type of freezer. Be sure dasher is properly inserted so that it will turn freely.
   Place freezer can in outer tub of freezer.
   Place 2 quarts of crushed ice around freezer.
   Sprinkle 1 cup of coarse salt over ice.
   Repeat the addition of ice and salt until ice reaches top of freezer can.
   Turn crank of freezer until crank becomes very hard to turn.
   Continue to turn crank for one more minute.
   Drain off the water in the outer tub that has accumulated from the melted ice.
   Push remaining ice and salt down in outer tub and away from top of freezer can.
   With clean paper toweling, wipe off top and upper sides of freezer can.
   Remove lid of freezer can.
   Carefully remove dasher from freezer can. Scrape off as much of the pineapple ice as you can. Put dasher on tray.
   With large spoon pack ice down in freezer can.
   Put the cork in the hole in the lid.
   Replace lid.

Pack outer tub with ice and salt in layers using 1 quart of ice sprinkled with 1 cup of salt.
Cover top of freezer with several layers of paper.
Let stand for at least 2 hours before serving.

6. Clean work area as directed.

7. Evaluate the Pineapple Ice and your work using the judging sheet.

8. Figure the cost per serving using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE XI
Orange Sherbet (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   3 pint measuring cups
   1 quart measuring cup
   2 cup measuring cups
   1 large mixing bowl (6 qt.)
   1 wooden spoon
   2 mixer bowls (place in refrigerator)
   2 whipping attachments for mixer
   1 rubber spatula
   plastic wrap

3. Measure and assemble the ingredients on a tray:
   milk--1 pint
   sugar--2 cups
   orange juice--1 quart
   lemon juice--½ cup
   egg whites--4
   sugar--½ cup
   whipping cream--1 pint (locate but keep in refrigerator until ready to use

4. Prepare fruit juice:
   In large mixing bowl, place the milk and the 2 cups of sugar. Mix with wooden spoon.
   Add orange juice and lemon juice.
   Stir until sugar is dissolved.
   Cover bowl with plastic wrap.
   Place in coldest part of freezer.
   Let freeze one hour or until slightly frozen.

5. Whip egg whites:
   Place egg whites in one of the mixer bowls.
   Beat with mixer on high speed until a fine foam forms.
   Gradually add the ½ cup sugar to the egg whites as you continue beating.
   Beat egg whites until stiff but not dry.

6. Beat heavy cream:
   Remove other mixer bowl and cream from refrigerator.
   Place whipping cream in cold mixer bowl.
   Beat with mixer on medium speed until cream begins to hold its shape.

7. Combine ingredients and freeze:
   Remove slightly frozen fruit juice from freezer. (Mixture should be mushy with ice crystals around edge of bowl.)
   Add beaten egg whites and whipped cream.
   With rubber scraper fold ingredients together until well blended.
   Cover bowl with plastic wrap.
   Return to coldest part of freezer to finish freezing.

8. Clean work area as directed.

9. Evaluate your work and the Orange Sherbet using the judging sheet.

10. Figure the cost per serving using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE XII
Vanilla Ice Cream (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   2 quart measuring cups
   1 pint measuring cup
   1 cup measuring cup
   1 set measuring spoons
   1 metal spatula
   1 double boiler
   1 wooden spoon
   1 small dish
   1 utility bowl
   1 rotary beater

3. Measure and assemble ingredients on a tray:
   sugar--2 cups
   flour--1/3 cup
   salt--1/4 teaspoon
   milk--1 quart
   eggs--6
   cream--1 quart
   vanilla--2 tablespoon

4. Prepare mixture:
   Fill bottom of double boiler 2/3 full of water.
   Place on range on heat to bring water to a boil.
   Put sugar, flour and salt in top of double boiler. Mix thoroughly with wooden spoon.
   Add milk to top of double boiler, stirring constantly.
   Place top of double boiler on range over direct medium heat. Stir constantly.
   Cook until mixture boils for one minute.
   Remove from heat. Set aside while preparing eggs.
   Break eggs one at a time into small dish. Check for freshness.
   Put in utility bowl. Beat eggs with rotary beater until mixed.
   Pour a small amount of the hot milk mixture into the beaten eggs. Stir with wooden spoon until blended.
   Pour egg mixture gradually into mixture in top of double boiler. Stir constantly.
   Regulate heat under bottom of double boiler so that water simmers but does not boil.
   Place top of double boiler over bottom of double boiler.
   Cook mixture for 3 minutes, stirring constantly.
   Remove top of double boiler from hot water.
   Set in a sink or pan of ice water to cool quickly.
   When custard is cool, stir in cream and vanilla.
   Pour into freezer can of crank-type freezer.

5. Freeze mixture:
   Follow procedure for freezing on Pineapple Ice Dessert Procedure Sheet, Work Experience X, Step 5.

6. Clean work area as directed.

7. Evaluate Vanilla Ice Cream and your work by using the judging sheet.

8. Figure the cost per serving by using the cost sheet.

DESSERT PROCEDURE SHEET--WORK EXPERIENCE XIII
Strawberry Mousse (25 servings)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the equipment on a cart:
   2 quart measuring cups
   1 pint measuring cup
   1 set measuring spoons
   wax paper
   3 mixing bowls (Place 1 bowl and attachment in refrigerator)
   1 wooden spoon
   2 whipping attachments for mixer
   1 rubber spatula
   1 large or 2 smaller molds
   plastic wrap

3. Measure and assemble the ingredients on a tray:
   heavy cream--1 quart (locate but leave in refrigerator until needed)
   crushed fresh strawberries--1 quart
   egg whites--8
   salt--¼ teaspoon
   sugar--2 cups

4. Prepare strawberries:
   Place strawberries in one of mixing bowls.
   Add sugar to strawberries.
   Stir with a wooden spoon until sugar is dissolved.
   Set aside while preparing egg whites and whipped cream.

5. Beat egg whites:
   Put egg whites in mixer bowl. Add salt.
   Beat with mixer on high speed until egg whites begin to peak when beaters lifted slowly.

6. Prepare cream:
   Remove bowl, whipper and cream from refrigerator.
   Pour cream into bowl.
   Beat with mixer on medium speed until cream begins to hold shape. Be careful not to overbeat.

7. Combine ingredients:
   Pour the strawberries over the whipped cream. Turn mixer on slow speed to blend. Scrape down sides of bowl.
   Put egg whites into bowl with strawberries and cream.
   Fold ingredients together with rubber spatula until thoroughly blended.
   Pour mixture into mold or molds.
   Cover with plastic wrap.
   Place in coldest part of freezer until frozen.
   Serve.

8. Clean work area as directed.

9. Evaluate your work and the Strawberry Mousse using the judging sheet.

10. Figure the cost per serving by using the cost sheet.

DESSERT JUDGING SHEET
Vanilla Cornstarch Pudding

Rate your work from 1-5, 5 perfect. 5 4 3 2 1

Sanitation
Washed hands before starting work
Wore clean apron
Washed hands after using handkerchief
Rinsed equipment before using
Checked equipment for any remaining food particles

Management
Assembled equipment before starting work.
Assembled ingredients before starting work.
Used cart for moving equipment around kitchen as needed.
Used equipment for job intended.
Used time profitably between steps.
Used food economically.

Clean-up
Kept counter neat and wiped up while working.
Disposed of all waste and scraps as directed.
Washed, rinsed and dried all dishes and utensils used.
Stored all supplies in proper place.
Clean all used areas:
  Counter tops
  Trays
  Carts
  Refrigerator
  Sink
  Floor
  Others

Food Preparation Work
Followed procedure sheet step by step.
Scalded milk but did not let boil.
Added dry ingredients to milk without any lumps.
Stirred pudding constantly.
Divided pudding evenly among molds.

Score Card for pudding

Texture
  Velvety smooth, free from lumps
Consistency
  Firm enough to hold shape when turned from mold
Flavor
  Mild flavor of vanilla

Good	Fair	Poor

DESSERT COST SHEET--VANILLA CORNSTARCH PUDDING

Cost of one serving:

1. Cost per lb. of sugar 1.____
2. No. of lbs. of sugar used 2.____
3. No. of lbs. used x cost per lb. equals cost of sugar used 3.____
4. Total cost of sugar used divided by 25 equals cost of sugar per serving 4.____

5. Cost per lb. of cornstarch 5.____
6. Cost per lb. of cornstarch divided by 16 6.____
7. No. of oz. used x cost per oz. equals cost of cornstarch used 7.____
8. Total cost of cornstarch divided by 25 equals cost of cornstarch per serving 8.____

9. Cost per lb. of salt 9.____
10. Cost per lb. divided by 1½ equals cost per cup 10.____
11. Cost per cup divided by 48 equals cost per teaspoon 11.____
12. No. of teaspoons used x cost per teaspoon equals cost of salt used 12.____
13. Total cost of salt used divided by 25 equals cost of salt per serving 13.____

14. Cost per quart of milk 14.____
15. No. of quarts of milk used 15.____
16. No. of quarts used x cost per quart equals cost of milk used 16.____
17. Total cost of milk used divided by 25 equals cost of milk per serving 17.____
18. Add lines 4, 8, 13 and 17 to give cost per serving 18.____

Note: Cost of vanilla not included.
What other costs are not included?

SUGGESTED TEST QUESTIONS ON DESSERTS

I. Matching (Place the letter of the correct name for the dessert in the space before the number)

(d) 1. Several kinds of cooked, dried fruits mixed together.
(a) 2. Milk desserts thickened with cornstarch or a cereal product.
(g) 3. Milk desserts thickened with eggs.
(c) 4. A beaten gelatin jelly
(j) 5. A beaten gelatin jelly containing egg white.
(f) 6. Frozen fruit juice and sugar sirup
(i) 7. Frozen fruit juice and milk.
(b) 8. Fruit and cream frozen without stirring
(e) 9. Mush fruit juice and sugar sirup.
(h) 10. Cream or custard stirred while freezing.

a. Pudding
b. Mousse
c. Whip
d. Compote
e. Frappe
f. Ice
g. Custard
h. Ice Cream
i. Sherbet
j. Sponge

II. True-False

(f) 1. A mousse is a good dessert to serve after a heavy main course.
(t) 2. Cooking fruits in a sugar sirup aids in retaining the original shape of the fruit.
(t) 3. Milk desserts containing eggs should be cooked at a low temperature.
(f) 4. Milk desserts containing cornstarch should be cooked at a low temperature.
(t) 5. Vigorously beating milk before scalding aids in preventing a scum forming on top.
(f) 6. Egg yolks are often used in desserts for their leavening power.
(t) 7. Stirring desserts while they are freezing contributes to a smooth texture.
(f) 8. The water should be bubbling in the bottom of the double boiler when cooking custard in the top of the double boiler.
(f) 9. Unflavored gelatin should be added to boiling water.
(f) 10. If milk curdles when you add fruit juice, it means the milk has spoiled.
(t) 11. The proportion of ice to salt when freezing desserts in a crank-type freezer is 8 parts ice to 1 part salt.
(f) 12. Gelatin desserts should be firm before beating.
(f) 13. Frozen desserts are rich and heavy.
(t) 14. Rennin added to milk results in almost immediate coagulation of the milk protein.
(f) 15. Desserts add many nutrients to the diet and should be included with every meal.

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCE ON CAKES

Sequence of Work Experiences:

A. Cakes with Fat
   I. Plain Layer Cake--Conventional Method
   II. Plain White Cake--Quick Mix Method
   III. Chocolate Cake
   IV. Chiffon Cake (Oil)

B. Cakes Without Fat (Sponge Cakes)
   V. Angel Food (White Sponge Cake)
   VI. Yellow Sponge Cake

Introduction:

Cakes of various types have been known by man for centuries. They are another type of flour mixture. Cakes can be made so that they vary in appearance, texture and flavor. They are divided into two types--fat or "butter" cakes and sponge cakes which contain no fat. Butter cakes are most often baked as sheet cakes, in layers or as individual cupcakes; sponge cakes are baked in tubes or sheets.

Work to be done:

1. Read the Information Sheet on Cakes.

2. Write the definitions of the following words:

   batter
   gluten
   leavening agent
   ingredients
   porous
   grain of the cake
   crumb of the cake
   symmetrical
   folding
   inverted

3. Read pages 333-344 in *Guide to Modern Meals* by Shank, Fitch and Chapman and try to find the same ideas as are on the information sheet.

4. Answer the study questions below:

   What are the two basic classes of cakes?
   What determines the food value of a cake?
   List the five forms of cakes.
   What is the one basic ingredient that is found in all cakes?
   List the other basic ingredients for cakes.
   What ingredients determine whether a cake is to be placed in one class or another?
   List four major qualities that cakes are judged by.

5. Prepare the cakes as directed on the procedure sheets.

6. Evaluate the cakes and the work using the judging sheet.

7. Figure the cost of the cakes by using the cost sheet.

CAKE INFORMATION SHEET

CAKES ARE PREPARED AND CHOSEN IN TERMS OF THEIR APPETITE APPEAL.

Cakes are divided into two types--fat or "butter" cakes and sponge cakes, which contain no fat.

Cakes containing fat, butter, margarine or vegetable shortening are delicate and tender in texture and differ in flavor according to particular flavorings used.

Butter cakes can be mixed by the conventional or muffin method or the quick-mix method.

Chiffon cakes resemble the sponge cake in egg content, appearance and texture while containing a liquid fat.

Cakes without fat have a larger proportion of egg than cakes with fat, their texture is spongelike and the flavor depends on whether egg yolk or egg white is used and on particular flavoring used.

White sponge or angel food cakes use only the whites of the eggs.

Both the egg yolk and egg white are ingredients in plain sponge cakes.

The food value of cakes will vary according to the ingredients in them.

Vegetable shortenings used in cakes supply calories. Butter or margarine used in cakes supply calories and Vitamin A.

Milk and eggs will supply proteins, vitamins and minerals.

Enriched all-purpose flour will add vitamins and minerals, but special cake flours are not usually enriched.

Despite the presence of other nutrients cakes can only be depended upon to supply calories.

Layer, loaf, sheet, upside-down and cupcakes represent the various forms of cakes used in a menu.

Layer cakes are made by placing two or more shallow layers of baked cake one on top of another, and spreading a filling between them.

Loaf cakes are plainer in appearance than layer cakes and may or may not be frosted.

Sheet cakes are made by baking the cake batter in a large shallow pan.

Upside-down cakes are made by placing a fruit mixture or separate pieces of fruit in a greased pan and the cake batter is poured on top, cooked and served bottom side up.

Cupcakes are small cakes with each one being a single serving.

V-5

The ingredients serve various purposes in cakes with fat or without fat.

Cakes with fat:

Flour is used to supply the gluten which traps bubbles of the leavening gases to make the porous framework of the cake.

Leavening agents are the materials used to make the cake rise during baking, examples are baking powder, air and steam.

Fat and sugar tend to have a weakening effect on the gluten framework and make the cake tender and delicate.

Eggs strengthen the gluten framework and give some flavor and color to the cake.

Milk or other liquid ingredients make gluten from the flour and cause the baking powder to act; it also gives the desired consistency to the uncooked mixture.

Flavorings are used to add flavor to the cake.

Cakes without fat:

Flour, sugar and flavoring are used for the same purposes as in the making of cakes with fat.

Eggs serve as the liquid, supply the framework and add color and flavor to the cake.

Air and steam are the leavening agents.

The baking and care of cakes require various techniques.

Cakes with fat are baked at moderate temperatures. (350-375°F)

Cakes without fat are baked at lower temperatures. (300-350°F)

Cakes with fat are allowed to cool slightly in the pans for several minutes on a cake rack. (approximately 10 min.)

Cakes without fat and chiffon cakes are left in the baking pan, which is inverted, until they are entirely cold.

Cakes should be stored in well-ventilated, tightly covered containers.

The shape, crust, texture and flavor are the four major qualities on which cakes are evaluated.

A slightly rounded top, evenness in depth and size characterize the shape of the cake.

The crust should be tender, thin and golden brown on top.

The texture should be moist, tender, light and even grained.

A pleasing flavor and no aftertaste of baking powder or soda is required.

CAKE PROCEDURE SHEET, WORK EXPERIENCE I
Plain Layer Cake--Conventional Method of Mixing

1. Read this procedure sheet, section by section as you work.

2. Assemble all equipment needed:
   - 2 9-inch round cake pans
   - 1 flour sifter
   - 1 large mixing bowl
   - 1 electric mixer or rotary beater
   - 1 rubber scraper
   - 1 wooden spoon
   - 1 set dry measuring cups
   - 1 set measuring spoons
   - 1 1-cup liquid measuring cup
   - 2 wire cake racks
   - 1 tray
   - waxed paper
   - 1 pastry brush
   - 1 metal spatula
   - 1 custard cup or small sauce dish

3. Turn on oven. Set at 375° F.

4. Assemble all ingredients needed on a tray:
   - sifted cake flour--2 cups (1/2 lb.) or all-purpose flour, sifted--1 7/8 cups
   - baking powder--2 1/2 teaspoon
   - salt--1/2 teaspoon
   - shortening--1/2 cup (1/4 lb.)
   - sugar--1 cup (1/2 lb.)
   - eggs--2 (1/2 cup) unbeaten
   - milk--3/4 cup
   - vanilla--1 teaspoon

5. Grease the cake pans by rubbing the cakepan with a pastry brush dipped in shortening.

   Dust greased cake pans with flour:

   Put 1 tablespoon flour in greased cake pan.

   Shake pan until bottom is completely covered with a thin layer of flour.

   Turn pan upside down and shake out any excess flour.

6. Prepare cake batter:

   Sift together the flour, baking powder, and salt onto waxed paper.
   Put shortening and sugar in mixing bowl.
   Mix on low speed 1 minute to mix; stop mixer.
   Scrape down sides of bowl with rubber scraper.
   Mix 2 minutes on medium speed; mixture will look creamy.
   Break eggs 1 at a time into custard cup; inspect for freshness.
   Add unbeaten eggs to batter.
   Beat with mixer on medium speed 2 minutes or until batter is light and fluffy.
   Add 1/3 of the flour mixture to the fat mixture and beat 1 minute.
   Add about 1/2 of the milk. Mix.
   Add another 1/3 of the flour mixture and beat 1 minute.
   Add the remaining milk. Mix into batter.
   Add remainder of the flour mixture and beat 2 minutes.
   Add vanilla. Stir into mixture thoroughly.

7. Baking cake:

   Immediately pour batter evenly into the greased layer cake pans.
   Place in the already heated oven and bake at 375°F for 25 to 30 minutes. Test for doneness (cake springs back when touched lightly with the finger.)

Remove cake from oven. Set pans on wire racks to cool.
Allow cake to cool in pan for 5 to 10 minutes.
Loosen edges of cake with metal spatula. Place wire rack over cake pan. Turn over so that cake falls from pan onto wire rack. Set aside to cool.

8. If desired, frost when cold with desired frosting.

9. Cut, wrap, and serve the cake as directed or store the cake on a shelf in a tightly covered, well-ventilated container.

10. Clean work areas:
Return all unused ingredients to proper storage place.
Care for unsold cake as directed.
Wash, rinse, and drain in rack for air drying or place in dishwasher all used utensils or dishes.
Dispose of the waste.
Wipe the tray, counter surfaces, and places where you worked.
Return all preparation and cleaning utensils and supplies to the proper place.
Wipe up any spills on the floor if necessary.

11. Evaluate the work done and the cake by using the Score Card and Judging Sheet.

12. Figure cost per serving by using the cost sheet.

CAKE PROCEDURE SHEET--WORK EXPERIENCE II
Plain White Cake--Quick Mix Method of Mixing*

*Butter cakes made by the quick method of mixing require a larger proportion of sugar and shortening, because there is less separate creaming and beating of ingredients.

1. Read this procedure sheet, section by section as you work.

2. Assemble all equipment needed:
   2 8-inch round cake pans
   1 flour sifter
   2 large mixing bowls
   1 electric mixer or rotary beater
   1 rubber scraper
   1 wooden spoon
   1 set dry measuring cups
   1 1-cup liquid measuring cup
   1 set measuring spoons
   1 tray
   2 wire cake racks
   1 pastry brush
   1 metal spatula

3. Prepare pans and oven:
   Turn on the oven; set at 350°F.
   Grease the cake pans and dust with flour as directed in Work Experience I.

4. Assemble all ingredients needed on a tray:
   sifted cake flour--2 cups (1/2 lb.) or
   sifted all-purpose flour 1 7/8 cups
   sugar--1 1/3 cups
   shortening--1/2 cup
   milk--2/3 cup
   baking powder--3 1/4 teaspoons
   milk--1 cup
   egg whites--4 (1/2 cup)
   almond extract--3/4 teaspoon
   salt--1 teaspoon

5. Prepare cake batter:
   Sift together the flour, baking powder, salt and sugar into the bowl of the electric mixer.
   Add shortening and 2/3 cup of the milk.
   Beat 2 1/2 minutes at medium speed.
   Add the rest of the milk, egg whites, and flavoring.
   Beat for 3 more minutes at medium speed.

6. Bake the cake:
   Pour the batter evenly into the greased layer cake pans.
   Place in the preheated oven and bake at 350°F for 25 to 30 minutes or until the cake springs back when touched lightly with the finger.
   Place cake pans on wire rack to cool for 5-10 minutes.
   Remove cake from pan and place on cake rack to finish cooling. (Directions in Work Experience I.)

7. If desired, frost when cold with desired flavoring.

8. Cut, wrap, and serve the cake as directed or store the cake as previously directed.

9. Clean-up as directed in Work Experience I.

10. **Evaluate the work done by using the Judging Sheet and the cake by using the Score Card.**

11. **Figure cost per serving of cake by using cost sheet.**

CAKE PROCEDURE SHEET--WORK EXPERIENCE III

Chocolate Cake

1. Read this procedure sheet, section by section as you work.

2. Assemble all equipment needed:

2 9-inch round cake pans
1 flour sifter
1 large mixing bowl
1 saucepan
1 wooden spoon
1 electric mixer or rotary beater
2 rubber scrapers
1 set dry measuring cups
1 set measuring spoons
1 1-cup liquid measuring cup
2 wire cake racks
1 paring or regular kitchen knife or shears
1 tray
waxed paper
1 custard cup
1 metal spatula

3. Turn on oven. Set at 365°F.

4. Grease the cake pans and dust lightly with flour as directed in Cake Work Experience I.

5. Assemble all ingredients needed on a tray:

sifted all-purpose flour 2 cups
baking powder--2 1/2 teaspoons
salt--1/2 teaspoon
chocolate--3 squares unsweetened
water--1/2 cup
shortening--1/2 cup
sugar--1 2/3 cups
eggs--3, unbeaten
vanilla-1 teaspoon
buttermilk--1 cup
1/4 teaspoon soda

6. Prepare cake batter:

Sift together twice the flour, baking powder, baking soda and salt on the wax paper.

Cut unsweetened chocolate into several pieces. Put the chocolate into the saucepan, add water and cook over low heat stirring constantly, until a thick paste is formed. Remove from heat and cool this mixture. (3-5 minutes)

Put shortening and sugar into the mixing bowl and cream until well blended with the electric mixer.

Break eggs, one at a time, into a custard cup.

Add unbeaten eggs, one at a time, and then beat with mixer until light and fluffy after adding each egg.

Add chocolate paste and vanilla and beat well.

Stir in sifted dry ingredients alternately with buttermilk, stirring after addition until batter is smooth. (In making batters and doughs where the step calls for adding dry and liquid ingredients alternately, add each in three installments, starting with the dry ingredients. This prevents the mixture from becoming either too stiff or too thin. See Directions in Work Experience I.)

7. Baking the cake:

Pour the batter evenly into the greased layer cake pans. This cake may be baked in a variety of forms.

Place in the preheated oven and bake at 365°F for 35 minutes or until the cake springs back when touched lightly with the finger. Place pans on wire rack for 5 to 10 minutes and then remove the cakes from the pans and place on a wire rack to cool.

8. **If desired, frost when cold with desired frosting.**
9. **Cut, wrap and serve the cake or store as previously directed.**
10. **Clean up as directed in Work Experience I.**
11. **Evaluate the work done by using the Judging Sheet and the cake by using the Score Card.**
12. **Figure cost per serving of cake by using the cost sheet.**

CAKE PROCEDURE SHEET--WORK EXPERIENCE IV
Chiffon Cake

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment on a cart:
   - 1 9-inch tube cake pan
   - 1 flour sifter
   - 2 large mixing bowls for mixer
   - 1 electric mixer or rotary beater
   - 1 rubber scraper
   - 1 wooden spoon
   - 1 set dry measuring cups
   - 1 1-cup liquid measuring cup
   - 1 set measuring spoons
   - 1 tray
   - 1 funnel
   - 1 metal spatula
   - 1 wire rack

3. Turn on the oven. Set at 350°F.

4. Assemble all ingredients on a tray:
   - cake flour--1 1/8 cups sifted
   - sugar--3/4 cup
   - baking powder--1 1/2 teaspoon
   - salt--1/2 teaspoon
   - oil--1/4 cup
   - egg yolks, unbeaten--2
   - water--1/4 cup
   - vanilla--1 teaspoon
   - egg whites--1/2 cup (about 4)
   - cream of tartar--1/4 teaspoon

5. Prepare cake batter:

   Sift together the flour, 1/2 cup of the sugar, baking powder and salt into the mixing bowl.

   With a wooden spoon push the dry ingredients to the sides of the bowl making a well in the center of the dry ingredients.

   Add oil, unbeaten egg yolks, water and vanilla, but do not beat.

   Put the egg whites in the other bowl and beat with the electric mixer until foamy, sprinkle cream of tartar over them, and add the 1/4 cup of sugar, beating it in gradually with rotary beater or electric mixer at high speed to make a stiff meringue.

   Beat the flour-oil-egg yolk mixture until the batter looks smooth.

   Pour the batter gradually over the meringue.

   With a rubber scraper cut and fold the batter gently into the stiffly beaten egg white until color is uniform.

6. Bake the cake:

   Pour the batter into the ungreased tube pan.

   Place in the preheated oven and bake at 350°F for 35 to 40 minutes or until cake springs back when touched lightly with finger.

   When cake is done, invert pan over an inverted funnel or neck of a bottle. Allow the cake to cool for an hour before removing from pan.

   Remove from pan by loosing from sides of pan and around tube gently with a metal spatula.

   Turn pan upside down onto a wire rack. Gently remove pan.

7. If desired, frost with desired frosting.

8. Cut, wrap and serve the cake or store as directed in a tightly covered container.

9. Clean up as directed by Work Experience I.

10. Evaluate the work done and the cake by using the score card and the judging sheet.

11. Figure the cost per serving of the cake by using the cost sheet.

CAKE PROCEDURE SHEET--WORK EXPERIENCE V
Angel Food Cake

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment needed:
   1 10-inch tube cake pan
   1 flour sifter
   2 large mixing bowls
   1 electric mixer or rotary beater
   1 rubber scraper
   1 metal spatula
   1 set dry measuring cups
   1 1-cup liquid measuring cup
   1 set measuring spoons
   1 tray
   wax paper
   funnel

3. Turn on oven and set at 325°F.

4. Assemble all ingredients needed on a tray:
   sifted cake flour--1 cup
   sifted sugar--1 1/2 cups
   salt--1/2 teaspoon
   egg whites--1 1/4 cups (10 to 12)
     at room temperature
   cream of tartar--1 teaspoon
   vanilla--1 teaspoon
   almond extract--1 teaspoon

5. Prepare cake batter:
   Sift together twice flour and sugar onto wax paper.
   Put egg whites into bowl of .mixer.
   Add salt to egg whites and beat with electric mixer at high speed until foamy.
   Sprinkle cream of tartar over foamy egg whites, add vanilla and almond extract, and beat until stiff but not dry.
   Sift the flour-sugar mixture, about 1/4 each time, onto stiffly beaten egg whites, cutting and folding gently after each addition until well blended.
   Pour the batter immediately into the ungreased tube pan and draw a metal spatula through it to remove entrapped large air bubbles.

6. Bake the cake:
   Place cake pan in preheated oven with thermostat set at 325°F.
   Set timer for 1 hour.
   At the end of hour, check cake for doneness (springs back when touched lightly with finger.
   Invert the pan over an inverted funnel or neck of a bottle and allow the cake to cool one hour before removing from pan.

7. Frost if desired or dust cake with confectioners' sugar.

8. Cut, wrap and serve or store as previously directed.

9. Clean up work areas as directed in Work Experience I.

10. Evaluate the work done by using the Judging Sheet and the cake by using the Score Card.

11. Figure cost per serving by using the Cost Sheet.

CAKE PROCEDURE SHEET--WORK EXPERIENCE VI
"Yellow" Sponge Cake

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment needed:
   - 1 10-inch tube cake pan
   - 1 flour sifter
   - 1 electric mixer with 2 sets of beaters
   - 2 large mixing bowls
   - 1 rubber scraper
   - 1 metal spatula
   - 1 set dry measuring cups
   - 1 1-cup liquid measuring cup
   - 1 tray
   - funnel

3. Turn on oven and set at 325°F.

4. Assemble all ingredients needed on a tray:
   - eggs--6, separated
   - sugar--1 cup
   - grated rind of lemon--1
   - lemon juice--2 tablespoon
   - salt--1/2 teaspoon
   - cake flour--1 cup sifted

5. Prepare cake batter:
   Put egg yolks in mixing bowl, and beat with electric mixer at high speed, until egg yolks are thick and lemon-colored.
   Add sugar, 2 tablespoons at a time.
   Beat thoroughly after each addition of sugar.
   Add grated lemon rind and lemon juice, and beat well. Set aside.
   Change beaters in mixer.
   Add egg whites to other mixing bowl.
   Add salt to egg whites, and beat with clean beaters at high speed until stiff but not dry.
   If there is any egg yolk or fat on the beaters the egg whites will not have as much volume.
   With a rubber scraper, cut out 1/2 of the stiffly beaten egg whites and add to the egg yolk-sugar mixture.
   Cut and fold the stiffly beaten egg whites into the egg yolk-sugar mixture.
   Add 1/4 cup of flour at a time to the mixture. Blend after each addition by cutting and folding until flour is not visible.
   Add remaining beaten egg whites.
   Cut and fold into the batter.
   Immediately pour batter into ungreased tube pan. Draw a spatula through it to remove entrapped large air bubbles.

6. Bake cake:
   Place pan in preheated oven with thermostat set at 325°F.
   Set timer for 1 hour.

7. Clean work areas as directed in Work Experience I.

8. Test cake for doneness (cake springs back when touched lightly with the finger.) Remove from oven.
   Invert the pan over an inverted funnel or neck of a bottle and allow cake to cool for 1 hour before removing from pan.

9. **Cut, wrap and serve or store as previously directed.**

10. **Evaluate the work done by using the judging sheet and the cake by using the score card.**

11. **Figure the cost per serving of the cake by using the cost sheet.**

COST SHEET--PLAIN LAYER CAKE

Cost of one serving:

1. Price paid per pound of flour 1.____
2. Number of pound used for the cake 2.____
3. Number of pounds used x cost of flour per pound 3.____
4. Number of servings in the cake 4.____
5. Total cost of flour divided by number of servings in the cake 5.____

6. Price paid per pound of baking powder 6.____
7. Number of ounces per pound 7.____
8. Price paid divided by number of oz. per lb. 8.____
9. No. of tablespoons of baking powder per lb. 9.____
10. Cost of 1 oz. divided by no. of tablespoons of baking powder per oz. 10.____
11. No. of teaspoons per tablespoon 11.____
12. Cost of 1 tablespoon divided by no. of teaspoons per tablespoon 12.____
13. No. of teaspoons used 13.____
14. No. of teaspoons used x cost of one teaspoon 14.____
15. Number of servings in the cake 15.____
16. Total cost of baking powder divided by no. of servings in the cake 16.____

17. Price paid per lb. of salt 17.____
18. No. of oz. per lb. 18.____
19. Price paid divided by no. of oz. per lb. 19.____
20. No. of tablespoons of salt per oz. 20.____
21. Cost of 1 oz. divided by no. of tablespoons of salt per oz. 21.____
22. No. of teaspoons per tablespoons 22.____
23. Cost of 1 tablespoon divided by no. of teaspoons per tablespoon 23.____
24. No. of teaspoons used 24.____
25. No. of teaspoons used x cost of 1 teaspoon 25.____
26. No. of servings in the cake 26.____
27. Total cost of salt divided by no. of servings in the cake 27.____

28. Price paid per lb. of shortening 28.____
29. No. of lbs. used for the cake 29.____
30. No. of lbs. used x cost of shortening per lb. 30.____
31. No. of servings in the cake 31.____
32. Total cost of shortening divided by no. of servings in the cake 32.____

33. Price paid per lb. of sugar 33.____
34. No. of lbs. used for the cake 34.____
35. No. of lbs. used x cost of sugar per lb. 35.____

COST SHEET CONTINUED

36. Number of servings in the cake 36.____
37. Total cost of sugar divided by number of servings in the cake. 37.____

38. Cost of eggs per dozen 38.____
39. Number of eggs in one dozen 39.____
40. Cost of eggs divided by number of eggs in a dozen 40.____(cost of 1 egg)
41. Number of eggs used 41.____
42. Cost of one egg X number of eggs used 42.____

43. Cost of milk per gallon 43.____
44. Number of cups per gallon 44.____
45. Cost per gallon divided by number of cups in a gallon 45.____(cost of 1 cup)
46. Number of cups used for the cake 46.____
47. Number of cups used X cost of 1 cup 47.____(cost of milk)
48. Number of servings in the cake 48.____
49. Cost of milk used divided by number of servings in the cake 49.____

50. Cost paid per gallon of vanilla flavor 50.____
51. Number of cups per gallon 51.____
52. Price paid divided by number of cups 52.____(cost of 1 cup)
53. Number of teaspoons per cup 53.____
54. Cost of 1 cup divided by number of teaspoons per cup 54.____(cost of 1 t.)
55. Number of teaspoons used 55.____
56. Number of teaspoons used X cost of 1 t. 56.____

57. Add answers 5, 16, 27, 32, 37, 42, 49, and 56 to get total cost of 1 serving. 57.____

SCORE CARD FOR CAKES

	Good	Fair	Poor
SCORE CARD FOR PLAIN LAYER CAKE			
Layers symmetrical in shape			
Slightly rounded top			
Crust thin			
Crust golden brown			
Even crumb			
Fine grain			
Moist texture			
Tender texture			
Flavors blended well			
SCORE CARD FOR ANGEL FOOD CAKE			
Symmetrical in shape			
Crust very light brown			
Crust moist			
White interior			
Even grain			
Fine grain			
Moist texture			
Velvety texture			
Delicately flavored with almond			

Use Rating Scale for your work from Dessert Lessons.

CAKES--SUGGESTED TEST QUESTIONS

Write the answer or answers to the following questions:

1. What are the two basic classes of cakes?
   (butter cakes and Sponge cakes)

2. What determines the food value of a cake?
   (the ingredients in them)

3. Which work best completes this sentence. Despite the presence of other nutrients cakes can only be depended upon to
   (a) supply proteins
   *(b) supply calories
   (c) supply vitamins

4. List the five forms of cake.
   (layer, loaf, sheet, upside down and cupcakes)

5. What is the one basic ingredient that is found in all cakes?
   (flour)

6. List the other basic ingredients for cakes.
   (sugar, fat, leavening agent, liquid, eggs and flavoring)

7. What ingredients determine whether a cake is to be placed in one class or the other?
   (fat)

8. Why are cakes without fat baked at lower temperatures?
   (Because of the egg content. Use a low temperature to coagulate the egg content evenly, at high temperatures the protein in the egg coagulates.)

9. List the four major qualities that cakes are judged by.
   (shape, crust, texture and flavor)

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON FROSTINGS

Sequence of work experiences:

A. Uncooked frostings
    I. Confectioner's sugar and liquid--orange butter frosting

B. Cooked frostings
    II. Fudge type--chocolate fudge frosting
    III. Cooked sirup over beaten egg white--boiled frosting
    IV. Sugar, water and egg whites beaten together--seven minute frosting

Introduction:

Frostings are a high carbohydrate food consisting chiefly of sugar. Frostings, sometimes called icings, may be either cooked or uncooked and flavored with a variety of flavorings. Frostings add a flavored sweetness to cakes, enhancing their appeal to many people.

Work to be done:

1. Read the information sheet on frostings.

2. Look up and write the definitions for the following words:

    confectioner's sugar
    consistency
    vigorous
    solubility
    vapor
    condense
    sugar crystals
    evaporation
    concentration
    sucrose
    crystallization

3. Read the information on frostings, Chapter 25, pages 343-344 and in Chapter 33, page 404 in Guide to Modern Meals, by Shank, Fitch and Chapman.

4. Answer the study questions below:

    What are the two types of frostings?
    Which type of sugar is used in each type of frosting.
    What are the characteristics of a desirable frosting?
    Why is butter sometimes added to frostings?
    Why should you cover the pan for the first 3 or 4 minutes the mixture is boiling?
    How can you determine when to beat a frosting?
    What are the steps in frosting a two-layer cake?

5. Prepare the sequence of frostings according to the procedure sheet.

6. Evaluate the frostings and your work by using the judging sheets and score cards.

7. Figure the cost by using the cost sheets.

INFORMATION SHEET

Blending certain ingredients together until they become creamy produces a frosting quickly without cooking.

Using the fine grained confectioners' sugar in uncooked frosting results in a frosting which is smooth and velvety.

Mixing a liquid with the sugar provides flavor and the spreading consistency.

Vigorous beating of uncooked frostings tends to produce a creamy, almost fluffy texture.

Adding fat to the frostings aids in keeping the frosting soft and creamy for a longer period of time.

Cooking sugar, liquid and other ingredients under controlled conditions produces more elaborate frosting.

Complete solution of the sugar in the liquid is essential to produce a creamy, fine textured frosting.

A large amount of liquid in prpportion to the amount of sugar aids in securing complete solution of the sugar.

Stirring and heating increases the solubility of sugar in water.

Covering the pan until the mixture has boiled 3 or 4 minutes causes the vapor to condense and wash down any sugar crystals that might stick to the side of the pan.

Continued boiling of the solution results in evaporation of the liquid and a concentration of the ingredients.

Using a candy thermometer aids in cooking the mixture to the best concentration.

Temperature is an indication of the extent of concentration since the boiling point of sucrose solutions rises as the concentration of the solution increases.

Gradual cooling of the boiled sugar mixture without stirring tends to prevent crystal formation resulting in a smooth, creamy texture.

Partially cooling fudge type frosting mixtures without any stirring results in producing the desired crystallization.

Rapid beating of crystalline mixtures properly cooked and cooled produces the most desirable product.

The addition of cream of tartar, corn sirup or similar ingredients aids in producing a creamy product.

Spread frostings on cooled cakes whenever frostings reach the proper consistency.

Brush any excess cake crumbs from the sides of the layers before frosting prevents the crumbs from mixing with the frosting.

For a two-layer cake, turning one layer upside down on the cake plate results in a better fitting between bottoms of the two layers.

Working the frosting first on the sides of the cake from the bottom to the top tends to reduce satisfactory results.

FROSTING PROCEDURE SHEET--WORK EXPERIENCE I
Orange Butter Frosting (3½-4 cups--2 2-8" layer cakes)

1. Read this procedure sheet, section by section, as you work.

2. Assemble in one place all equipment needed:
   - 1 scales
   - 1 mixing bowl
   - 1 beating attachment for mixer
   - 1 cup measuring cup
   - 1 grater
   - 1 set measuring spoons
   - 1 metal spatula
   - wax paper
   - 1 rubber scraper
   - 1 pastry brush
   - 1 frosting spatula
   - 2 cake plates

3. Measure or weigh and assemble all ingredients needed:
   - butter--12 oz.
   - orange juice--½ cup
   - grated orange rind--1½ T.
   - confectioners' sugar--2 lb., 8 oz.
   - salt--2 teaspoons
   - baked cake--4 layers

4. Prepare frosting:
   Put butter in mixing bowl.
   Cream on medium speed 1 minute or until butter is creamy and soft.
   Mix orange juice, salt and grated orange rind.
   Add approximately one-fourth of the sugar. Beat on low speed until blended.
   Add approximately one-third of the liquid.
   Continue adding sugar and liquid alternately until all ingredients are added and blended.
   Turn mixer to medium speed and continue beating until frosting is velvety and smooth.

5. Frost cake:
   Tear four strips of wax paper 2 inches wide. Place around outer edges of cake plate.
   Brush excess crumbs from sides of cooked layer of cake with pastry brush.
   Place layer of cake, top side down on cake plate. (Wax paper should be under edge of cake and covering outside edge of cake plate.)
   Put ½ cup of frosting on layer. Spread with spatula to within ¼ inch of edge of plate.
   Brush excess crumbs from sides of second layer of cake.
   Place layer of cake on top of frosting, top side up.
   With spatula, spread frosting on the sides of the cake.
   Work in a swirling motion from the bottom to the top of the cake.
   Continue until the sides of the cake are covered.
   Put two-thirds cup of frosting on top of cake.
   Spread frosting to edge of cake.
   Swirl frosting in a decorative manner.
   Carefully remove strips of wax paper so that you now have a clean cake plate around your cake.
   Serve or store as directed.

6. Clean work area:
   Store any unused frosting or ingredients.

Wash, rinse and stack in drainer or in dishwasher all dishes and utensils used.
Wipe over table tops with a damp cloth.
Dry, if necessary, and store dishes and utensils.

7. **Judge frosting and your work by using the judging sheet and score card.**

8. **Figure cost of frosting by using the cost sheet.**

FROSTING PROCEDURE SHEET--WORK EXPERIENCE II
Chocolate Fudge Frosting (6 cups--2 2-8" layer cakes)

1. Read this procedure sheet, section by section, as you work.

2. Assemble all equipment needed on a cart:
   1 scales
   1 1-cup measuring cup
   1 set measuring spoons
   1 metal spatula
   2 pint measuring cups
   1 2-quart saucepan with lid
   1 pot spoon
   1 candy thermometer
   1 mixer bowl
   1 beating attachment for mixer
   1 rubber scraper
   1 frosting spatula
   wax paper
   2 cake plates

3. Measure or weigh and assemble ingredients on a tray:
   cocoa--4 oz.
   sugar--2 lb., 8 oz.
   corn sirup--¼ cup
   salt--½ teaspoon
   water--1½ cups
   evaporated milk--2 cups
   butter--4 oz. (1 stick)
   vanilla--2 teaspoons
   baked cake--4 layers

4. Prepare frosting:
   Put cocoa, sugar, corn sirup, salt, water and milk in saucepan.
   Place saucepan on range over medium heat.
   Stir until ingredients are well mixed and mixture starts to get hot.
   Remove pot spoon and cover saucepan.
   Leave saucepan covered until mixture has boiled 4 minutes. Adjust heat so that mixture does not boil over.
   Remove cover. Do not stir mixture. (Sides of pan should be free from any sugar crystals.)
   Attach candy thermometer so that the bulb of the thermometer does not touch the saucepan.
   Boil mixture until mixture reaches 235°F., (soft ball stage).
   Remove from heat.
   Set pan aside to let mixture cool. Mixture should cool to 110°F or cool enough so that bottom of saucepan can rest comfortably on hand.
   Transfer mixture to mixing bowl. Use rubber scraper to clean out pan thoroughly.
   Add vanilla to mixture.
   Beat mixture until the proper consistency to spread on cake.

5. Frost cake:
   Follow same procedure as in Frosting, Work Experience I.

6. Clean work area as directed.

7. Judge frosting and your work by using frosting score card and judging sheet.

8. Figure cost per serving by using cost sheet.

FROSTING PROCEDURE SHEET--WORK EXPERIENCE III
Boiled Frosting (2 qts.--2 cakes)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the equipment needed on a cart:
   - 1 scales
   - 1 quart measuring cup
   - 1 small utility bowl
   - 1 set measuring spoons
   - 1 metal spatula
   - 1 2-qt. saucepan with cover
   - 1 pot spoon
   - 1 candy thermometer
   - 1 mixer bowl
   - 1 whipping attachment for mixer
   - 1 rubber scraper
   - 1 frosting spatula
   - wax paper
   - 2 cake plates

3. Measure or weigh and assemble on a tray the needed ingredients:
   - sugar--2 lb.
   - hot water--1¼ cups
   - egg whites--4
   - vanilla--1 tablespoon
   - baked cake--4 layers

4. Prepare frosting:

   Egg whites:

   Put egg whites in mixer bowl. (If you separated fresh eggs, put egg yolks in small utility bowl, cover yolks with cool water, cover bowl and store in refrigerator.

   Beat egg whites until they will hold stiff peaks.

   Sirup:

   Cook this sirup while egg whites are beating.
   Put sugar and hot water in saucepan.
   Stir until sugar is dissolved.
   When mixture starts to boil, cover. Set timer for 3 minutes.
   Remove cover. Do not stir.
   Attach candy thermometer so that bulb is not touching saucepan.
   Adjust heat so that mixture is boiling gently.
   Boil mixture without stirring until thermometer reaches 238°F.

   Combine boiled sirup and beaten egg whites:

   Continue beating egg whites on low speed.
   Gradually pour boiled sirup so that all sirup is immediately blended into egg whites.
   Scrape down sides of bowl with rubber scraper so that entire mixture is blended and beaten.
   Continue pouring sirup over egg whites until all sirup drains from pan. Do not scrape pan.
   Continue beating until frosting is of consistency to spread.
   Add vanilla. Beat enough to blend vanilla.
   Spread on cake at once.

5. Frost cake:
   Follow procedure for frosting cake in Frosting, Work Experience I.

6. Clean work area as directed.

7. Judge frosting and your work by using judging sheet.

8. Figure cost per serving by using cost sheet.

FROSTING PROCEDURE SHEET--WORK EXPERIENCE IV
Double Boiler Frosting (Sufficient for 2 cakes)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   - 1 scales
   - 1 set measuring spoons
   - 1 metal spatula
   - 1 cup measuring cup
   - 1 2-quart double boiler with lid
   - 1 pot spoon
   - 1 portable mixer or rotary beater
   - 1 rubber scraper
   - 1 frosting spatula
   - wax paper
   - 2 cakes plates

3. Measure or weigh and assemble ingredients on a tray:
   - sugar--1 1/2 lb.
   - water--2/3 cup
   - egg whites--4
   - corn sirup--2 tablespoons
   - salt--1/4 teaspoon
   - vanilla--2 teaspoons
   - baked cake--4 layers

4. Prepare frosting:
   Fill bottom of double boiler 2/3 full of water.
   Place on range. Turn heat on high.
   In top of double boiler put sugar, water, egg whites, corn sirup, and salt.
   Mix ingredients.
   Check water in bottom of double boiler. Adjust heat so that water is boiling gently.
   Put top of double boiler over boiling water.
   Stir ingredients for 1 minute.
   Cover double boiler for 2 minutes.
   Remove double boiler from heat, leaving top of double boiler over hot water.
   Beat at high speed until mixture forms peaks--(approx. 7 min.)
   Add vanilla and beat 1 minute longer.
   Frost cake immediately.

5. Frost cake:
   Follow procedure for frosting cake in Frosting Work Experience I.

6. Clean work area as directed.

7. Judge frosting and your work by using judging sheet and frosting score card.

8. Figure cost per serving by using cost sheet.

SCORECARD FOR DOUBLE-BOILER FROSTING

Appearance	Good	Fair	Poor
Snow-white			
Holds shape, stands in peaks			
Completely covers cake			
Texture			
Fluffy			
Free from sugar crystals			
Smooth			
Moist			
Flavor			
Pleasing vanilla flavor			
Very sweet			

COST SHEET FOR BOILED FROSTING

Cost per serving of frosting:

1. Price per lb. of sugar 1.____
2. No. of lbs. of sugar used 2.____
3. Cost per lb. x no. of lbs. used 3.____

4. Cost per dozen of eggs 4.____
5. Cost per dozen divided by 12 5.____
6. No. of eggs used 6.____
7. No. of eggs used x cost per egg 7.____
8. Line 7 divided by 2 (used white only) 8.____

9. Cost per oz. of vanilla 9.____
10. No. of oz. of vanilla used 10.____
11. No. of oz. used x cost per oz. 11.____

12. Cost of sugar, egg whites and vanilla used (add line 3, 8 and 11) 12.____
13. No. of servings of frosting made (no. of pieces of cake frosted with boiled frosting) 13.____
14. Total cost of ingredients used (line 12 divided by no. of servings, line 13)--cost per serving of frosting 14.____

SUGGESTED TEST QUESTIONS--FROSTINGS

I. Completion:

1. The main nutritive value of frostings is___(calories)___.

2. Uncooked frostings are made with ___(confectioners' sugar)___ and ___(liquid)___.

3. Uncooked frostings can be made creamy and fluffy by (vigorous beating) .

4. Adding ___(fat)___ to an uncooked frosting helps it to keep for several days.

5. Two ways to help prevent sugar crystals from forming in cooking frosting is: (a)___(cover pan first few minutes)___, and (b)___(cook without stirring)___.

6. The best way to determine when frostings have cooked sufficiently is ___(check candy thermometer)___.

7. You can tell when to start beating a fudge type frosting by ___(seeing if pan is cool enough to set on hand)___.

8. The characteristics of a good frosting are (a)___(holds shape) (b)___(creamy)___, and (c)___(pleasing flavor)___.

II. Describe the procedure for spreading frosting on a two-layer cake.

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCES ON COOKIES

Sequence of work experiences:

I. Bar Cookies--Brownies
II. Drop Cookies--Oatmeal Cookies
III. Refrigerator Cookies--Ginger Cookies
IV. Molded Cookies--Sandies
V. Rolled Cookies--Sugar
VI. Pressed Cookies--Butter Tea

Introduction:

Cookies are sweet and have flavors similar to the flavors of cakes. Cookie ingredients are similar to cake ingredients except that there is little or no liquid called for in cookie recipes resulting in cookie dough being much thicker than cake batter. Cookies can be made into an infinite number of shapes and designs and decorated suitable for all occasions. Calories are the chief contribution of cookies nutritionally. Cookies are used much the same as cakes except that cookies are not quite so suitable for serving alone since they are mostly unfrosted and less sweet than cakes.

Work to be done:

1. Read the information sheet on cookies. Read the section of the information sheet on cakes on ingredients.

2. Look up and write the definitions to the following words:

   all-purpose flour
   creaming
   gluten
   short texture
   thermostat
   blend
   dough

3. Read the information on cookies in Chapter 26, pages 345-348, Guide to Modern Meals, by Shank, Fitch and Chapman.

4. Answer the study questions below:

   What are the 6 types of cookies?
   What is the chief difference between the types of cookies?
   Describe each type of cookie.
   Which type of flour is used in making cookies?
   How should cookies be stored?
   What are the characteristics of a good cookie?

5. Prepare the sequence of cookies according to the procedure sheets.

6. Evaluate the cookies and your work by using the judging sheets and score card.

7. Figure the cost per cookie by using the cost sheets.

COOKIE INFORMATION SHEET

Cookies are classified as drop, rolled, refrigerator, molded, pressed or bar cookies.

Pushing a soft dough from a spoon onto a baking sheet results in an unevenly shaped cookie referred to as a drop cookie.

Rolled cookies result from rolling a stiff dough into a thin sheet and cutting into a desired shape.

Cookies made from slicing chilled stiff cookie dough are referred to as refrigerator cookies.

Molded cookies are shaped with the hands into balls or other desired shapes from a stiff cookie dough.

Pressed cookies are made by forcing a stiff, rich dough through a cookie press.

Bar cookies result from baking a soft cookie dough in a shallow pan and cutting as desired after baking.

The ingredients used in making cookies are the same as those used in making cakes.

All-purpose flour instead of cake flour is preferred for cookies.

Molasses or honey sometimes replaces part of the sugar and liquid.

The flavor of cookies is often enhanced by the adding of chocolate, spices, nuts, dried or candied fruits and other ingredients.

The addition of cream of tartar in some cookies results in a crisper cookie.

The mixing of ingredients for cookies is similar to the method of mixing butter cakes.

Creaming together butter and sugar until light and fluffy contributes to the tenderness of the cookies.

The addition of eggs to cookie dough strengthens the gluten framework.

Flour supplies the gluten which entraps bubbles of the leavening gases, making the porous framework of the cookies.

COOKIE PROCEDURE SHEET--WORK EXPERIENCE I
Brownies (5 dozen 2" squares)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
1 scales
wax paper
1 set measuring spoons
1 metal spatula
2 custard cups or small dishes
1 mixer bowl
1 beating attachment
1 rubber scraper
1 flour sifter
1 nut chopper
1 12 x 20 inch shallow baking pan
1 wire cooling rack
1 knife
1 spatula

3. Weigh or measure and assemble ingredients on a tray:
shortening--1 lb.
sugar--2 lb.
eggs--12
flour--12 oz.
cocoa--8 oz.
baking powder--4 teaspoons
salt--2 teaspoons
nuts--12 ounces
vanilla--4 tablespoons

4. Prepare dough:
Put shortening and sugar in mixer bowl.
Mix together on low speed. Beat on medium speed until creamy.
Break eggs one at a time into small dish. Check for freshness.
Add eggs to fat and sugar mixture.
Beat until very light and fluffy.
Set flour sifter on wax paper.
Add flour, salt, baking powder and cocoa to sifter. Sift together.
Add sifted dry ingredients to mixer bowl of fat, sugar and eggs.
Mix together thoroughly.
Chop nuts. Add.
Add vanilla. Mix until nuts and vanilla are thoroughly blended.

5. Bake cookies:
Turn on oven. Set thermostat to 325°F.
Lightly grease bottom of baking pan with a crumpled piece of wax paper dipped into an unsalted fat.
Spread dough into baking pan. Clean out bowl thoroughly with rubber scraper.
Spread dough evenly.
Place in preheated oven.
Set timer for 30 minutes.
Remove from oven when baked. Set pan on wire rack to cool.
When cooled cut into 2-inch squares (6 across and 10 lengthwise).
Remove from pan with spatula.
May be stored for several days in a tightly covered container.

6. Clean work area:
Return all unused ingredients.
Wash, rinse and drain or put in dishwasher all used utensils and equipment.
Wipe all work areas with a damp cloth.

Dry, if necessary, and store all equipment in proper place.
Wipe up any spills.
Store cookies in tightly covered container when cooled.

7. Evaluate the brownies and your work by using the judging sheet and score card.

8. Figure the cost per brownie by using the cost sheet.

COOKIE PROCEDURE SHEET--WORK EXPERIENCE II
Oatmeal Drop Cookies (5 dozen)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the equipment needed on a cart:

   1 scales
   wax paper
   1 set measuring spoons
   1 metal spatula
   1 flour sifter
   3 custard cups (small containers to hold liquid ingredients)
   1 mixer bowl
   1 beating attachment
   1 rubber scraper
   2 teaspoons
   3 baking sheets
   2 wire cooling racks
   1 broad metal spatula

3. Weigh or measure and assemble the ingredients on a tray:

   brown sugar--8 oz.
   butter or shortening--6 oz.
   eggs--2
   rolled oats--7 oz.
   flour--8 oz.
   baking powder--2 teaspoons
   milk--5 tablespoons
   baking soda--1/2 teaspoon (dissolve in 1 tablespoon water)
   raisins, chopped--6 oz.
   vanilla-- 1 teaspoon
   unsalted fat

4. Prepare cookie dough:

   Put butter and brown sugar in mixer bowl.
   Cream together with mixer on low speed until ingredients are blended and creamy.
   Break eggs one at a time into custard cup or saucer. Check for freshness. Add to creamed ingredients.
   Beat eggs into creamed butter and sugar until light and fluffy.
   Add oats to mixer bowl. Mix on low until oats are completely blended.
   Put flour and baking powder into sifter. Sift together onto a piece of wax paper.
   Mix together the milk and soda dissolved in water.
   Add approximately one-third of the flour to the mixer bowl.
   Blend flour into creamed mixture with mixer on low.
   Add one-half of the milk mixture to the mixer bowl. Mix.
   Add another third of the flour. Beat until blended.
   Add remaining milk. Mix.
   Add remaining flour. Beat until thoroughly mixed.
   Add raisins and vanilla. Mix until raisins are distributed throughout batter.

5. Bake cookies:

   Turn on oven. Set thermostat to 375°F.
   Rub baking sheets lightly with a crumpled piece of wax paper dipped in unsalted fat.
   With a teaspoon dip out about 2/3 oz. of dough. (Weigh first few cookies to judge amount.)
   With a second teaspoon push dough from spoon onto baking sheet.
   Allow two inches in every direction between cookies.
   Continue until all dough has been dropped onto baking sheets. Use rubber scraper to clean out mixer bowl thoroughly.

Place baking sheets of cookies in oven.
Set timer for 12 minutes.
At end of 12 minutes or when cookies are lightly browned, remove from oven.
Immediately remove cookies from baking sheet with broad spatula and place on wire cooling racks so that air can circulate all around the cookies while cooling.

6. Clean work area as directed.

7. Evaluate the cookies and your work by using the judging sheet and the score card.

8. Figure the cost per cookie by using the cost sheet.

COOKIE PROCEDURE SHEET--WORK EXPERIENCE III
Refrigerator Ginger Cookies (8 dozen)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
1 cup liquid measuring cup
1 scales
1 metal spatula
1 set measuring spoons
wax paper
1 1-quart saucepan
1 mixer bowl
1 beating attachment
1 custard cup or small dish
1 flour sifter
1 rubber scraper
1 cutting board
1 sharp slicing knife
2 large baking sheets
2 wire cooling racks
1 broad spatula

3. Weigh or measure and assemble ingredients on a tray:
molasses--1 cup
sugar--8 oz.
shortening--8 oz.
eggs--2
salt--1/2 teaspoon
baking soda--1 teaspoon
ginger--2 teaspoons
flour--1 lb. 12 oz.

4. Prepare cookie dough:
Put sugar and molasses in saucepan.
Put on range on medium heat.
Boil 1 minute.
Take saucepan off heat and set aside to cool.
Put shortening in mixer bowl.
Break eggs one at a time in small dish. Check for freshness.
Add eggs to mixer bowl.
Add cooled molasses and sugar.
Mix together on low speed.
Beat 2 minutes on medium speed.
Set flour sifter on a piece of wax paper.
Put flour, salt, soda and ginger in flour sifter.
Sift the dry ingredients together onto the wax paper.
Add dry ingredients to mixer bowl.
Mix on low speed until all flour is well blended.
Put two layers of wax paper on work counter.
Scrape cookie dough from mixer bowl onto wax paper.
With hands, shape dough into a long roll 2 inches in diameter.
Wrap roll of dough completely with wax paper.
Store dough in the refrigerator overnight as directed.

5. Clean work area as directed.

6. Bake cookies:
Turn on oven. Set thermostat at 375°F.
Remove dough from refrigerator.
Place dough on cutting board.
Divide dough into 4 equal rolls.
Return all but one roll to refrigerator.
Slice remaining roll of dough on cutting board into slices ¼-inch thick.

Place cookies onto baking sheets.
Place baking sheet into preheated oven.
Set timer for 8 minutes.
Continue slicing and baking the other rolls of cookies dough as directed for first roll.
Remove cookies from the oven when lightly browned.
Immediately remove cookies from baking sheet with spatula and place on wire cooling rack.
When cookies are cool, store in a tightly covered container until served.

7. **Clean work area as directed.**

8. **Evaluate your work and cookies by using the judging sheet and score card.**

9. **Figure cost per cookie by using the cost sheet.**

COOKIE PROCEDURE SHEET--WORK EXPERIENCE IV
Sandies (molded cookies) (8 dozen)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment on a cart:
   1 scales
   wax paper
   1 set measuring spoons
   1 metal spatula
   2 small dishes
   1 nut chopper
   1 mixer bowl
   1 beating attachment
   1 rubber scraper
   2 baking sheets
   2 wire cooling racks
   1 broad spatula
   1 flour sifter
   1 small utility bowl

3. Weigh or measure and assemble ingredients on a tray:
   butter--12 oz.
   sugar--3 oz.
   vanilla--1 teaspoon
   flour--1 lb. 2 oz.
   salt--1 teaspoon
   ice water--1 tablespoon
   pecans--8 oz.
   confectioners' sugar--1 lb.

4. Prepare cookie dough:
   Put butter, sugar and vanilla into bowl.
   Mix together on low speed until mixed.
   Beat on medium speed until light and fluffy.
   Add salt to flour.
   Add flour to mixer bowl.
   Blend flour into butter-sugar mixture until well blended.
   Chop pecans.
   Add chopped pecans and ice water.
   Mix until pecans are evenly distributed.
   With rubber scraper put cookie dough onto a double thickness of wax paper.
   Wrap dough and place in refrigerator overnight.

5. Clean work area as directed.

6. Bake cookies:
   Turn on oven. Set thermostat at 325°F.
   Dip a small, crumpled piece of wax paper into unsalted fat and lightly oil baking sheets.
   Remove cookie dough from refrigerator.
   Shape dough in small balls 3/4 inch in diameter.
   Place balls of dough one inch apart on baking sheets.
   Put baking sheet in oven.
   Set timer for 20 minutes.
   Sift confectioners' sugar into a small utility bowl.
   Remove cookies from oven when they are just starting to brown.
   Remove cookies from baking sheet and put a few at a time into bowl of confectioners' sugar.
   Roll cookies in sugar and place on wire racks to cool.

7. Clean work area as directed.

8. **Evaluate your work and cookies by using the judging sheet and score card.**

9. **Figure cost per cookie by using cost sheet.**

COOKIE PROCEDURE SHEET--WORK EXPERIENCE V
Rolled Sugar Cookies (8 dozen)

1. Read this procedure sheet, section by section, as you work.

2. Assemble the equipment on a cart:
   - 1 scales
   - wax paper
   - 1 set measuring spoons
   - 1 metal spatula
   - 1 flour sifter
   - 1 custard cup or saucer
   - 1 mixer bowl
   - 1 mixing attachment
   - 1 rubber scraper
   - 1 dough board
   - 1 rolling pin
   - cookie cutters of desired shapes
   - 1 broad spatula
   - 4 baking sheets
   - 2 large wire cooling racks

3. Weigh or measure and assemble the ingredients on a tray:
   - sugar--1 lb.
   - butter--8 oz.
   - eggs--4
   - flour--1 lb.
   - salt--3/4 teaspoon
   - cream of tartar--2 teaspoons
   - baking soda--1 teaspoon
   - vanilla--1 teaspoon
   - flour--extra for rolling

4. Prepare cookie dough:

   Put sugar and butter in mixer bowl.
   Blend together with mixer on low.
   Beat together with mixer on medium until creamy and smooth.
   Break eggs one at a time into a custard cup or saucer. Check for freshness.
   Add eggs and vanilla. Beat until mixture is light and fluffy, about 3 minutes.
   Put flour, salt, cream of tartar and soda into flour sifter which is on a piece of wax paper.
   Sift dry ingredients together.
   Add dry ingredients to mixer.
   Thoroughly mix all ingredients to make a soft dough.
   Put soft cookie dough into a large double sheet of wax paper. Use rubber scraper to thoroughly clean out bowl. Wrap dough completely with wax paper.
   Place wrapped dough in refrigerator.
   Chill 1 hour or until dough is chilled all the way through.

5. Clean work area while cookie dough is chilling.

6. Rolling cookies:

   Assemble the dough board, rolling pin, cookie cutters, broad spatula, baking sheets and extra flour.
   Turn on oven. Set thermostat to 400°F.
   Lightly flour dough board.
   Remove dough from refrigerator.
   Cut dough into 8 portions.
   Roll one piece of dough at a time.
   Roll from center of dough to outside, working in all directions.

When dough is about 1/4 inch thick, loosen from dough board with spatula. Lift dough from board. Quickly flour dough board again. Return rolled dough to dough board, turning dough evenly.
Continue rolling until dough is 1/8 inch thick. Try to roll dough so that it is uniform thickness or cookies will brown unevenly.
Cut dough with cookie cutters. Cut cookies close together so that you have as few trimmings as possible to work into next portion of dough.
Lift cookies with broad spatula from dough board to baking sheet. Cookies do not spread during baking.
Place baking sheet in preheated oven. Set timer for 8 minutes.
Continue rolling dough until all dough is rolled, cut and on baking sheets.
Bake in preheated oven for 8 to 10 minutes or until lightly browned.
Remove cookies from oven and immediately remove cookies from baking sheet onto a wire rack to cool.

7. Clean work area as directed.

8. Evaluate your work and cookies by using the judging sheet and score card.

9. Figure the cost per cookie by using the cost sheet.

COOKIE PROCEDURE SHEET--WORK EXPERIENCE VI
Butter Tea Cookies (Pressed) (6 dozen small)

1. **Read this procedure sheet, section by section, as you work.**

2. **Assemble the equipment on a cart:**

1 scales	1 beating attachment
1 small covered refrigerator jar	1 rubber scraper
1 small utility bowl	1 cookie press
1 set measuring spoons	2 baking sheets
wax paper	2 wire cooling racks
1 mixer bowl	1 broad spatula

3. **Weigh or measure and assemble the ingredients:**

butter--8 oz.	flour--10 oz.
sugar--4½ oz.	vanilla-½ teaspoon
egg yolks--3 (store egg whites in covered refrigerator jar)	

4. **Prepare cookies:**
   Put butter and sugar in mixer bowl.
   Blend on low speed until well-mixed.
   Beat on medium speed until creamy.
   Add egg yolks and vanilla. Beat until creamy.
   Add flour. Mix until well blended.
   Cover bowl and store in refrigerator for 1 hour or until dough is chilled.

5. **Clean work area while dough is chilling.**

6. **Bake cookies:**
   Turn on oven. Set thermostat at 400°F.
   Remove cookie dough from refrigerator.
   Select design to be used on cookie press.
   Fill cookie press 2/3 full of cookie dough.
   Shape dough with cookie press onto baking sheet. (Do not force too much dough through cookie press for each cookie or cookies will lose shape.) Allow 1 inch between cookies.
   Place cookies in oven.
   Set timer for 10 minutes.
   Remove baking sheets from oven when cookies are lightly browned.
   Immediately remove cookies from baking sheet with spatula onto a wire rack for cooling.
   When cookies are cool, serve or store as directed.

7. **Clean work area as directed.**

8. **Evaluate the cookies and your work by using the judging sheet and score card.**

9. **Figure the cost per cookie by using the cost sheet.**

SCORE CARD--ROLLED OATS DROP COOKIES

Scorecard	Good	Fair	Poor
Appearance			
Medium brown			
Rough surface			
Slightly irregular in shape			
Texture			
Slightly short			
Flavor			
Sweet			
Nutlike flavor			

Judging Sheet for Making Rolled Oats Drop Cookies

(Rate your work from 1-5, 5 perfect)

	1	2	3	4	5
Observed rules for personal cleanliness					
Followed procedure sheet step by step					
Observed safety precautions					
Kept work areas neat and organized					
Thoroughly cleaned work area					
Stored all equipment, ingredients, and products as directed					
Managed time efficiently					

COST SHEET FOR ROLLED OATS DROP COOKIES

1. Cost of sugar per pound 1.____
2. No. of lbs. of sugar used 2.____
3. No. of lbs. of sugar used x cost per lb. of sugar 3.____

4. Cost per dozen eggs 4.____
5. Cost per dozen eggs divided by 12 5.____
6. Cost per egg x no. of eggs used 6.____

7. Cost per lb. of shortening 7.____
8. Cost per lb. of shortening divided by 16 8.____
9. No. of oz. of shortening used 9.____
10. No. of oz. used x cost per oz. 10.____

11. Cost per oz. rolled oats 11.____
12. No. of oz. oats used 12.____
13. Cost per oz. x no. oz. used 13.____

14. Cost of flour per lb. 14.____
15. No. of lbs. of flour used 15.____
16. Cost per lb. x no. of lbs. used 16.____

17. Cost per quart of milk 17.____
18. Cost per quart of milk divided by 32 (cost per oz.) 18.____
19. No. of oz. of milk used 19.____
20. Cost per oz. x no. of oz. used 20.____

21. Cost of raisins per oz. 21.____
22. No. of oz. of raisins used 22.____
23. Cost per oz. x no. of oz. used 23.____

24. Add lines 3, 6, 10, 13, 16, 20 and 23 for total cost of ingredients used 24.____
25. No. of cookies made from ingredients 25.____
26. Total cost of ingredients divided by no. of cookies made gives cost per cookie 26.___

Additional costs:

- Cost of baking powder, baking soda and vanilla not included
- Cost of your time spent making cookies
- Cost of cookies broken or not sold
- Cost of maintaining kitchen and equipment

SUGGESTED TEST QUESTIONS--COOKIES

Completion questions: (Fill in the missing word or words)

1. Cookies resulting from forcing a dough through a cookie press are called (pressed cookies).

2. Cookies made by slicing chilled, stiff dough are called (refrigerator cookies).

3. Cookies made from cutting a thin sheet of cookie dough in shapes are called (rolled cookies).

4. Irregular shaped cookies made by pushing a small amount of soft dough onto a baking sheet are called (dropped cookies).

5. Stiff cookie dough shaped by the hands into balls or other shapes are called (molded cookies).

6. Cookie dough baked in a shallow pan and then cut result in (bar cookies).

7. The chief difference in the ingredients in cookies and cakes is in the (liquid).

8. The best flour to use for cookies is (all-purpose).

9. The first step in the mixing of most cookie doughs is (cream butter and sugar).

10. The next ingredient added is usually the (eggs).

COOK'S HELPER II
SEQUENCE OF WORK EXPERIENCE ON PASTRY

Sequence of work experiences:

A. One Crust Pies
    I. Cream or meringue pies--Lemon Meringue
    II. Soft pies--Pumpkin

B. Two Crust Pies
    III. Fruit Pies--Cherry

Introduction:

Pies are one of America's favorite desserts. There are many types of pies such as cream, meringue, soft (custard), chiffon, parfait and speciality pies. A good pie is only as good as the pie crust. The pie crust is usually plain pastry; however, cookie crumbs, coconut and other ingredients are sometimes used. Pies are made with either one crust or two crust. Crust is sometimes baked before the filling is added or is baked with the filling. The nutritive value of pies varies according to the type of filling with the crust contributing starch and fat giving pies a high calorie value. Most pies are considered a heavy dessert and are usually served following a light meal.

Work to be done:

1. Read the information sheet on pastry.

2. Look up and write definitions for the following words:

    pastry
    shortening
    lard
    pastry flour
    all-purpose flour
    flaky
    mealy
    weeping
    pie crust
    pie wash
    meringue
    pie dough
    vents
    inverted
    flute

3. Read the information on pastry in Chapter 27, pages 349-356, Guide to Modern Meals, by Shank, Fitch and Chapman.

4. Answer the study questions below:

    Why is the fat cut into the flour when making pastry?
    What is the effect of overmixing on pie crust?
    How can shrinkage be reduced?
    What is the advantage of using ice water in making pastry?

5. Prepare the sequence of pies according to the procedure sheet.

6. Evaluate the pies and your work by using the judging sheet and score cards.

7. Figure the cost by using the cost sheets.

INFORMATION SHEET--PASTRY

The kind of crust used is related to the type of pie filling.

Pie crust, plain pastry and pie dough are terms used to describe the dough commonly used for the base of pies made of fat, flour, water and salt.

Most fruit and soft pies are poured into an unbaked pie shell and the dough and filling are baked at the same time.

For cream and meringue pies the cooked filling is added to the baked pie shell which is made of plain pastry, graham cracker crumbs, cookie crumbs, coconut or cereal crumbs.

The method of mixing the ingredients for plain pastry is related to the flakiness or mealiness of the crust.

Rubbing the flour and fat together until they become pieces of dough the size of marbles before adding the water and salt results in flaky pastry.

Rubbing the flour and fat together in the mixer until the particles are the size of peas before adding the water and salt results in mealy pastry.

Carefully chosen ingredients contribute to a good quality pie crust.

Lard and vegetable shortening are the fats commonly used for pie crust.

Soft wheat or pastry flour requires less fat to produce a good pie crust.

Salt improve the flavor of pie crust.

Using ice water or other chilled liquid hardens the shortening resulting in a more flaky crust.

Thorough mixing of ingredients increases tenderness but the best amount of mixing is determined by the choice of ingredients, temperature and the degree of mealiness or flakiness preferred.

Mixing the salt with the water results in a satisfactory blending of the salt.

Overmixing tends to produce a tough pie crust which shrinks excessively.

Flakiness is promoted by not mixing too much, using cold shortening and liquid and by cutting shortening into small pieces before adding to flour.

Rolling the ball of dough on a floured board into a thin layer flattens the strands of gluten and tiny pieces of fat and seals air in between these layers.

Air and steam from the water used are the leavening gases in plain pastry.

Chilling pie dough for 10 to 20 minutes contributes to greater ease in rolling.

Rolling pie crust as near as possible to the size of the pan to be used reduces the amount of trimmings to a minimum.

Rolling from the center of the flattened ball of dough to the outside results in a more even thickness of the dough from center to outside edge.

The thinner the pie crust, the more quickly browning and burning results.

Use trimmings from one pie crust in the bottom crust for another pie by rolling into the center of the dough.

Careful placing of the rolled pie crust into the pie pan so that it does not stretch aids in reducing shrinkage of the crust.

The type of crust and filling determines the baking time and temperature.

Baking fruit pies at moderately high temperatures (400 to 425°F) aids in preventing a soggy bottom crust.

One-crust pies with a custard filling require a lower temperature (350°F) for cooking the custard filling.

Baking pastry dough at a high temperature (425°F) results in producing steam and expanding air which pushes the layers of gluten and fat apart quickly before the gluten proteins become coagulated and making the dough tough.

Cream pie fillings are puddings (see dessert information sheet) which are cooked and poured into a pre-baked pie shell.

Whipped cream and meringue are commonly used toppings for pies.

Well chilled cream, whipped and sweetened with confectioner's sugar, results in a satisfactory topping to spoon lightly onto a chilled pie.

Adding sugar while beating egg whites results in a meringue.

Baking meringue toppings on cream pies prevents weeping, a watery layer that forms between the meringue and the pie filling when the meringue is undercooked.

Spreading the meringue over the filling to the edges of the crust aids in preventing shrinkage of the meringue.

The quality of pies is best the day the pie is made.

Fruit pies may be kept satisfactorily for one day stored in a cover in a cool place.

Cream, soft and chiffon pies must be stored in the refrigerator.

Serve cream or soft pies within a few hours after being made, if possible, before filling soaks into crust.

PASTRY PROCEDURE SHEET--WORK EXPERIENCE I
Lemon Meringue Pies (8 8" pies)

1. Read the procedure sheet, section by section, as you work.

2. Measure or weigh and assemble all equipment needed on a cart:

For Pastry:
1 scales
1 1-cup measuring cup
1 set measuring spoons
1 metal spatula
wax paper (use when weighing dry ingredients)
1 large mixing bowl
1 dough hook for mixer
1 sheet pan
1 dough board
1 rolling pin
1 bench scraper
1 fork
8 8" pie pans

For filling:
1 scales
1 set measuring spoons
1 grater
1 quart measuring cup
1 pint measuring cup
wax paper
2 mixing bowls
1 6-quart saucepan with cover
1 wooden spoon
1 beating attachment for mixer

For meringue:
1 scales
1 set measuring spoons
1 mixing bowl
1 whipping attachment for mixer
1 spatula

3. Assemble ingredients:

For Pastry:
pastry flour--1 lb.
lard--12 oz.
iced water--3/4 - 7/8 cups
salt--1/2 oz.
flour--available to use when rolling

For filling:
hot water--2 1/4 qt.
salt--2 teaspoons
grated lemon rinds--2
cornstarch--12 oz.
cold water--1 1/2 pt.
sugar--3 lb., 8 oz.
egg yolks--16
butter--3 oz.
lemon juice--1 1/2 cup

For meringue:
egg whites--16
salt--1/2 teaspoon
sugar--14 oz.
cornstarch--2 tablespoons

4. Prepare pie shells:

9a) Mix dough:
Place flour in large mixing bowl.
Add shortening to flour.
Mix with dough hook on mixer until particles are the size of marbles.
Mix salt and ice water.
Add water-salt mixture to flour and shortening.

Mix with three or four turns of the dough hook until all flour if moistened. Do not overmix.
Divide dough into 8 portions weighing 6 oz. each.
Place dough on sheet pan and put in refrigerator for at least 10 minutes.

(b) Roll dough:
Turn on oven. Set thermostat at 450°F.
Set pie crust from refrigerator.
Lightly flour dough board.
Roll one portion of the pie dough at a time. Roll dough in a circle about 1" larger than an inverted pie pan.
Fold dough in half, then fold over again.
Lift rolled dough into pie pan placing point of fold in the center of the pie pan.
Unfold the dough covering the entire pan.
Lift pie pan about 8 inches above table and let drop on the table to help fit crust into the pan.
Using the bench scraper, trim the crust so it extends 1/2" beyond the edge of the pan.
Fold edge of crust under until crust fits pie pan.
Flute edge of dough with fingers fastening pastry to rim of pan with a little pressure.
Prick pastry in many places on bottom and sides with a fork so entrapped air can escape as pastry bakes.
Set pie shell in refrigerator and repeat process until all 8 pie shells are in pans.
Gather trimmings from each pie shell and quickly shape the next piece of pie dough around trimmings.

(c) Bake pie shells:
Place pie shells in oven.
Set timer for 5 minutes.
Look at pastry, if large air bubbles have formed, prick with a fork to let out air.
Set timer for another 5 minutes.
Remove from oven at end of baking time or when pie crust is lightly browned.
Set aside to cool.

5. Prepare pie filling:
Put hot water, salt and grated lemon rinds in saucepan. Cover saucepan.
Place saucepan on range. Turn heat on high.
Heat until water is boiling. Reduce heat to medium.
While water is heating, add cornstarch to cold water. Stir with wooden spoon until well blended.
Remove cover from saucepan.
Gradually pour cornstarch-water mixture into boiling water stirring constantly with wooden spoon.
Stir constantly until mixture has reached boiling point and become clear.
Add sugar, stirring until sugar is dissolved. Remove saucepan.
Separate eggs, putting egg yolks in one mixing bowl and egg whites in another mixing bowl. Set egg whites aside until ready to make

meringue. (Do not put egg whites in refrigerator as room temperature egg whites beat more rapidly with greater volume.)
Beat egg yolks 2 minutes or until well beaten.
With dipper, gradually pour about one quart of hot mixture into beaten egg yolks, stirring constantly.
Now reverse procedure and very gradually pour beaten egg yolks into hot mixture, stirring constantly.
Add butter. Stir until dissolved.
Add lemon juice. Mix well.
Set aside while making meringue.

6. Prepare meringue:
Add salt to egg whites.
Mix on low speed for 1 1/2 minutes or until past frothy stage.
Continue beating.
Mix cornstarch with sugar.
Gradually add to egg whites while beating continues.
Continue to beat until stiff enough to hold peaks but not dry.

7. Assemble and bake pies:
Set oven temperature at 325°F.
Divide pie filling between the baked cooled pie shells.
Cover each with meringue using rubber scraper.
Seal the meringue carefully to the edge of the crust.
Swirl top of meringue in decorative pattern.
Put pies in oven.
Set timer for 15 minutes.
At end of time, check pies. Meringue should be lightly browned. If not, set timer for an additional 3 or 4 minutes.
Remove pies from oven. Set on rack to cool for 5-10 minutes.
Serve immediately or store in refrigerator until time to serve.

8. Clean work area:
Use bench scraper to scrape any of excess flour from dough board.
Store left-over flour or other ingredients as directed by instructor.
Wash, rinse and drain in rack (or place in dishwasher) all used dishes and utensils.
Wipe off all soiled area of work area with a clean damp cloth.
Dry, if needed, and return all dishes and utensils whereever stored.
Wipe up any spills on the flour, if necessary.

9. Evaluate pies and your work using judging sheet and score card.

10. Figure cost per serving of pies using cost sheet.

PASTRY PROCEDURE SHEET--WORK EXPERIENCE II
Soft Pie--Pumpkin (8 8" pies)

1. Read this procedure sheet, section by section, as you work.

2. Assemble equipment needed on a cart:
Refer to pastry work experience I for equipment needed for pastry.

Filling:
1 scales
wax paper (for measuring dry ingredients)
1 set measuring spoons
1 metal spatula
1 2-quart measuring cup
1 large mixing bowl for mixer
1 mixing attachment for mixer
1 utility bowl
1 small custard cup
1 mixing spoon
1 large dipper
1 rubber scraper
1 table knife

3. Measure or weigh and assemble ingredients needed on a tray:
Refer to pastry work experience I for ingredients needed for pastry.

Filling:
eggs--14
pumpkin--2 1/2 qt.
sugar, granulated--1 lb. 12 oz.
sugar, brown--10 oz.
ginger--1/2 tablespoon
cinnamon--1 1/2 tablespoon
salt--1 tablespoon
milk--2 3/4 qt.

4. Prepare pastry:
Refer to pastry work experience I directions on preparing pie dough.
Follow directions as given except do not prick bottom and sides of pie dough.

5. Prepare filling:
Break eggs one at a time into custard cup. Check for freshness. Put in large mixing bowl.
Beat eggs on low speed for 2 minutes or until well-beaten.
Add pumpkin. Turn mixer on low and mix.
In utility bowl put white sugar, brown sugar, ginger, cinnamon and salt.
Mix dry ingredients with large spoon until blended.
Add mixed dry ingredients to eggs and pumpkin.
Turn mixer on low and blend.
Add milk. Mix slowly until well blended.

6. Assemble and bake pies:
Turn on oven. Set thermostat to 450°F.
Get prepared pie shells from refrigerator.
Dip filling and divide evenly into unbaked pie shells.
Place pies in hot oven. Hot oven at first aids in preventing filling from soaking into crust.
Set timer for 15 minutes.
Lower temperature of oven to 325°F.
Set timer for 25 minutes.

Check pies to determine if pumpkin custard is firm (if done, knife will come out clean when inserted in center of pie.)
Remove pies when done. Set on a rack to cool.
Serve pies or store in refrigerator.

7. Clean work area as directed.

8. Evaluate pies by using judging sheet and score card.

9. Figure cost per serving by using cost sheet.

PASTRY PROCEDURE SHEET--WORK EXPERIENCE III
Fruit Pie--Cherry (8 8" pies)

1. Read this procedure sheet, section by section, as you work.

2. Assemble needed equipment in one place:
   1 scales
   1 pin measuring cup
   1 set measuring spoons
   1 metal spatula
   wax paper
   1 large mixing bowl
   1 dough hook for mixer
   1 sheet pan
   1 dough board
   1 rolling pin
   1 bench scraper
   1 fork
   8 8" pie pans
   1 large saucepan
   1 colander
   1 utility bowl fitting under colander
   1 tray
   1 9-qt. measuring cup
   1 small utility bowl
   1 large pot spoon
   1 rubber scraper
   2 pastry brushes
   1 small custard cup for water
   1 cooling rack

3. Measure or weigh and assemble all ingredients needed in one place:
   Pie dough:
   pastry flour--2 lb.
   shortening--1 lb. 8 oz.
   iced water--1 1/2 cup
   salt--1 oz.
   flour--additional ready for rolling

   Cherry filling:
   canned water pack red cherries--1 1/2 no. 10 cans
   cornstarch--6 oz.
   sugar--3 lb.
   milk--1/4 cup
   salt--1 tablespoon
   red food coloring

4. Prepare cherry pie filling:
   Open cans of cherries.
   Place colander over utility bowl.
   Pour cherries into colander. Let cherries drain.
   Set cherries on tray to one side to use later.
   Measure one quart of juice drained from cherries.
   Put juice in saucepan.
   Place saucepan of juice on range on medium heat.
   While juice is heating, measure in quart measuring cup one pint of juice drained from cherries.
   Add cornstarch to pint of juice. Mix thoroughly. Add 3 drops of red food coloring.
   While stirring constantly, gradually add cornstarch and juice to hot juice.
   Continue stirring until juice boils and thickens.
   Mix salt with sugar.
   Add sugar and salt to the thickened juice, stirring constantly.
   Continue cooking and stirring until mixture reaches the boiling point.
   Remove saucepan from heat.
   Add drained cherries. Mix carefully.
   Set aside to cool.

5. **Prepare pastry:**
   Refer to pastry work experience I.
   Follow steps for preparation of pastry through lining pie pan with pie dough.

6. **Assemble pie:**
   Turn on oven. Set thermostat at 425°F.
   Trim dough around the edge of the pie pan with the bench scraper until the dough fits the edge of the pie pan.
   Line all eight pie pans with pie dough.
   Fill unbaked lined pie pans with cooled cherry filling (about 1 quart of filling for each pie).
   Roll top crusts on lightly floured board until dough is about 1 inch larger than pie pan.
   Fold dough in half.
   Cut 4 or 5 slits in the dough for the top crust.
   Using pastry brush, brush the top edge of the bottom crust with water.
   Lift top crust and place over filled bottom crust.
   Fold edge of top crust under edge of bottom crust.
   Press together lightly to seal the top and bottom crusts together.
   Repeat process until all pies are covered with top crust.
   Brush tops of all pies lightly with milk.
   Lightly sprinkle sugar over tops of pies.
   Place pies in preheated oven.
   Set timer for 30 minutes.
   Check pies. Should be lightly browned.
   If needed, set timer for an additional 10 minutes.
   When pies are baked, remove from oven. Turn off oven.
   Set pies on a rack to cool.

8. **Clean work area as directed.**

9. **Evaluate your work and the pies by using the judging sheet and score card.**

10. **Figure cost per serving of pies using the cost sheet.**

EVALUATION AND FOLLOW-UP SHEET, WORK EXPERIENCE I
Cook's Helper

In evaluation of this type, the testing of performance and knowledge is involved. Performance testing is objective where established goals and standards are measured in terms of criteria. There are, however, other factors in performance testing when measuring workmanship; intangible aspects such as attitudes are to be also evaluated. This evaluation of performance might best be accomplished through a rating scale, checklist type of instrument. In testing knowledge, written tests which can be evaluated objectively can be used. Following are suggested rating scales for the individual and product and possible types of questions which might be used to test knowledge of the subject.

Rating Scale for Individual

Care of ingredients and pies	GOOD	FAIR	POOR
Pie filling prepared according to procedure sheet.			
Pie crust prepared according to procedure sheet.			
Pie assembled according to procedure sheet.			
Pie baked and cooled according to procedure sheet.			
Crust not baked today and returned to refrigerator.			
Care and use of equipment			
Equipment used for intended purpose.			
Equipment rinsed as used			
Equipment checked closely for hidden food remains during washing			
Equipment rinsed well			
Equipment dried well			
Equipment returned to designated place			
Management			
Instruction followed on procedure sheet			
Equipment assembled in one work area			
Ingredients assembled as directed on procedure sheet			
Proper equipment for job is used			
Supplies returned to place as finished			
Cart used for moving several items			
Food used economically			
Time requirements met			
Working space kept orderly			
Clean-up			
Surface areas cleaned			
counter tops			
sinks			
refrigerators			

	GOOD	FAIR	POOR
trays			
carts			
floors			
cutting boards			
tables			
Personal care			
Clean hands and nails			
Hair net secures hair			
Uniform or apron clean			
Make up as directed by teacher			
Personal qualities			
Cooperates with other workers			
Controls emotions			
Accepts advice or criticism			
Adapts to new work			
Works on own with little checking, dependable			
Exercises safety habits; minimizes change or accident			

Score Card for Pies

Appearance and Condition of fruit pies	GOOD	FAIR	POOR
Crust golden brown			
Crust remained sealed around outside edges			
Crust is tender when cut with a fork			
Crust is flaky or mealy			
Crust has tiny blisters			
Bottom crust is crisp and cooked through and is not soggy			
Filling is bright and clear color			

COST SHEET

Cost of one serving of cherry pie:

1. Cost per lb. of shortening or lard 1.____
2. No. of lbs. of shortening or lard used in pie crust 2.____
3. Cost of shortening used in pie crust 3.____
4. Cost of shortening divided by 8 4.____

5. Cost per lb. of pastry flour 5.____
6. No. of lbs. of pastry flour used in pie crust 6.____
7. Cost of pastry flour used in pie crust. 7.____
8. Cost of pastry flour divided by 8. 8.____

9. Cost of salt per oz. 9.____
10. No. of oz. of salt used in pie crust. 10.____
11. Cost of salt used in pie crust. 11.____
12. Cost of salt divided by 8. 12.____

13. Total cost of crust for 1 fruit pie. 13.____

14. Cost of no. 10 can of cherries 14.____
15. No. of No. 10 cans of cherries used in pie filling 15.____
16. Cost of cherries used in pie filling. 16.____
17. Cost of cherries divided by 8. 17.____

18. Cost per lb. of sugar 18.____
19. No. of lbs. of sugar used in pie filling 19.____
20. Cost of sugar used in pie filling 20.____
21. Cost of sugar divided by 8. 21.____

22. Cost of salt per oz. 22.____
23. Number of oz. of salt used in pie filling 23.____
24. Cost of salt used in pie filling 24.____
25. Cost of salt divided by 8 25.____

26. Cost per oz. of cornstarch 26.____
27. No. of oz. of cornstarch in pie filling. 27.____
28. Cost of cornstarch in pie filling 28.____
29. Cost of cornstarch divided by 8 29.____

30. Total cost of cherry pie filling for one pie. 30.____

31. Cost of crust and filling for one cherry pie. 31.____
32. Cost of one cherry pie divided by 8. This is the cost per serving of one piece of cherry pie.* 32.____

*What cost was not included?

SUGGESTED TEST QUESTIONS--PASTRY

Completion

1. The ingredients used in making plain pastry are (flour), (salt), and (water).

2. When rolling pastry out, the place to start rolling is (from the center).

3. Fruit pies are baked at (high, 400-425°F) temperature.

4. To prevent meringue from weeping, (bake meringue thoroughly).

5. The first step in making plain pastry is (cut shortening into flour).

6. Three main types of pies are (double crust--baked with filling), (single crust--baked with filling), and (single crust baked without filling).

7. Milk, egg white or other ingredient brushed over top crust of pie is referred to as (pie wash).

8. The advantage of using ice water when making pastry is (prevents melting of shortening resulting in a flakier crust).

9. Overmixing causes pie crust (to become tough and shrinks).

10. The leavening gases in plain pastry are (air) and (steam).

VOCATIONAL HOME ECONOMICS PROGRAMS FOR YOUTH AS HOUSEKEEPING AIDES FOR HOTELS, MOTELS, HOMES, AND OTHER PUBLIC BUILDINGS

This guide for the housekeeping aide provides resource material from which a local training program can be developed. It is recognized that the experience and education of trainees will vary, as will the aims and needs of each local situation.

A. Objectives of the Housekeeping Aide Training Course

1. Orientating trainees to the services and work of Hotels, Motels, Homes, Other Public Buildings Housekeeping Aides. During this unit, trainees will develop a job philosophy and learn how to maintain good working relations with other people.
2. Familiarizing trainees with ways to start the workday effectively and pleasantly.
3. Helping trainees develop the skills and knowledge they will need to clean and straighten a hotel, motel, home and other public buildings.
4. Helping trainees develop skills in the use and care of cleaning equipment, materials and supplies: learning basic safety practices.

B. Job Description of Housekeeping Aide

Performs all general cleaning duties in hotels, motels, homes and other public buildings. Collects and counts soiled linens; makes beds; empties trash from waste baskets; dusts furniture and woodwork; hangs up clothing; checks for damage to rooms; furniture or equipment and reports such items to supervising Housekeeper.

Sweeps or vacuums carpets or rugs; cleans bathroom tub, shower, basin, toilet, floor, mirrors and medicine cabinets; replenishes stationery, bathroom linens, and supplies; removes drinking glasses, replacing them with sanitized glasses. Checks room to be sure everything is in satisfactory condition. Housekeeping Aides: (a) Day Shift and (b) Night Shift.

C. Teacher Qualifications

A vocational home economics teacher for gainful employment shall be a graduate of a four-year teacher education course in home economics from an institution approved for preparing teachers for vocational home economics. Home economics courses related to instructing trainees for occupations for gainful employment, a year's accumulative experience in one or more occupations related to home economics make up the qualifications at this time. Courses with directed work experience may be used to accumulate this total.

D. Background of Trainee

A trainee should be functionally literate, be in good health and be able to work under supervision.

E. Qualifications of Trainees

1. Sixteen years of age or over. A trainee may be a former drop-out from high school
2. Desires employment as an objective of the two years of training
3. An interest in housekeeping aide work
4. A reasonable amount of manual dexterity
5. Follows directions carefully
6. Gets along with other people
7. A neat, clean and dependable worker

F. Length of Course and Course Units

A course of 60 hours is suggested for training.[1]

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[1] "Hotel and Motel Housekeeping Aide," The U.S. Department of Health, Education, and Welfare, Office of Education.

COURSE UNIT I

ORIENTATION TO THE NATURE AND SCOPE OF THE WORK[2]

Suggested Training Time 6 hours

Objective

Orientating trainees to the services and work of Hotels, Motels, Homes, and other Public Buildings Housekeeping Aides. During this unit, trainees will develop a job philosophy and learn how to maintain good working relations with other people.

Course Unit Outline

- I. Developing a job philosophy
  - A. Scope of the work
    - 1. Knowledge of the hotel or motel house regulations concerning employee procedures
    - 2. Knowledge of the home and school regulations concerning employee procedures
    - 3. Understanding cleaning rooms and preparing them for new guest occupancy
    - 4. Understanding types of security procedures to protect guests and worker
  - B. Value and importance of the work to employer, guests and self
  - C. Advantages of employment in this field
  - D. Advancement opportunities

- II. Maintaining good working relations

  - A. Desirable personal qualities: courtesy, cooperation, punctuality, dependability, honesty, ability to follow instructions, neat appearance, and ability to work swiftly and steadily

- III. Basic conditions of employment

  - A. Typical standards and regulations
  - B. Wages
    - 1. Local scale
    - 2. Tax deductions
  - C. Social security
    - 1. Purposes and benefits
    - 2. Deductions

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[2] Ibid.

- D. Insurance and Workman's Compensation
  - 1. Purposes and benefits
  - 2. Deductions
- E. Labor relations
  - 1. Hours of work
  - 2. Industrial standards for women

COURSE UNIT II

STARTING THE WORKDAY[3]

Suggested Training Time **4 hours**

Objective

Familiarizing trainees with ways to start the workday effectively and pleasantly.

Course Unit Outline

I. Dressing for work
   - A. Personal hygiene essentials
   - B. Good grooming: well-combed hair, clean finger nails, appropriate make-up
   - C. Suitable clothing: fresh uniform daily and appropriate shoes

II. Checking in for work
   - A. House rules for starting the day's work--common procedures
     1. Sign in or punch the timeclock.
     2. Get room pass key from the housekeeper or linen room.
     3. Obtain room report to learn number of vacancies of occupied rooms to be made up.
     4. Get blanks on which to make work report.
     5. Go to linen room and get the amount of linen and supplies needed to make up the double and single rooms on the assigned room report.
     6. Arrange supplies neatly on work cart and proceed to section assigned for work.

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[3] Ibid.

COURSE UNIT III

USE OF EQUIPMENT AND SUPPLIES AND SAFETY PRECAUTIONS[4]

Suggested Training Time 8 hours

Objectives

To develop skills in the use and care of cleaning equipment, materials, and supplies; To learn basic safety practices.

Course Unit Outline

I. Use and care of equipment and supplies
  A. Cleaning equipment
    1. Vacuum cleaner: proper use of attachments and dust removal
    2. Electric or hand brooms: how and where used
    3. Wet and dry mops: how and where used
  B. Cleaning and sanitary supplies
    1. Soaps and detergents
    2. Special cleaners
    3. Disinfectants
    4. Other sanitary supplies

II. Safety practices
  A. In room
    1. Turn on lights before entering darkened room
    2. Empty wastebaskets by turning upside down over old newspaper
    3. Use care in handling furniture to avoid back strain, splinters or cuts
    4. Check electric cords to prevent someone from tripping over them.
  B. In bathroom
    1. Use step stool when hanging shower curtains (not edge of tub)
    2. Watch for razor blades
  C. Other safety measures
    1. Be alert to broken glass on floors
    2. Use knob when closing door (not edge of door)
    3. Do not plug in vacuum or other electric appliances when hands are wet

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[4] Ibid.

COURSE UNIT IV

PROCEDURES FOR CLEANING HOTEL AND MOTEL ROOMS[5]

Suggested Training Time **42 hours**

Objectives

To help trainees develop the skills and knowledge they will need to clean and straighten a hotel or motel room.

Course Unit Outline

I. Major steps in making up a room

- A. Entering a room
  1. Check indicator on lock or look for "Do not Disturb" sign to see if room is occupied
  2. Knock on door with fingers, not keys, if room seems to be vacant.
  3. Unlock door, and announce "the aide." If occupant is still in room, withdraw quietly.
  4. Fill out room report indicating condition of each room.
  5. Report to housekeeper before starting work in the room.
- B. Preparing vacated rooms for new guests
  (Vacated rooms are cleaned and made up first so that the front office can make them available to new guests.)
  1. Open door wide and keep open until room is finished.
  2. Turn on every light to test bulbs and report or replace those burned out.
  3. Raise blinds to check if they are working properly
  4. Open windows or adjust air conditioner according to instructions.
  5. Note any damage or missing items on room report.
  6. Report any personal articles left by guests.
- C. Cleaning the room
  1. Empty partly filled glasses in toilet and take to service shelf.
  2. Empty ash trays on to dampened newspaper, not into toilet; wipe tray.
  3. Empty wastebaskets on to dampened newspapers, check for guest articles in trash; roll up newspaper; put in trash bag on cart.
  4. Wipe out wastebasket and put in fresh bottom liner.
  5. Collect and wrap all soiled linen in a sheet and place in soiled linen bag on cart.
  6. Make up bed according to procedure required by the supervising housekeeper and turn mattress on specified days.

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[5] *Ibid.*

7. Clean furniture and woodwork.
    a. Clean and polish all wooden furniture: dust inside of drawers of chest and report any guest belongings; check for extra blanket stored in chest.
    b. Dust telephone and disinfect mouthpiece.
    c. Dust upholstered furniture with a brush or a vacuum attachment.
    d. Wipe venetian blinds, baseboard, door moldings and window sills with dust cloth or damp cloth.

D. Cleaning the bathroom

1. Clean medicine cabinet, mirror and light fixtures.
2. Clean soap dish and wash basin using the cleaning materials required by the management.
3. Polish bowl and fixtures with clean, dry cloth.
4. Clean soap and dust from wall tile over tub.
5. Wipe shower curtain or sliding glass doors with damp cloth.
6. Clean rubber bath mat and hang it over edge of tub.
7. Scrub, dry and polish bathtub.
8. Clean inside of toilet bowl with brush and put in disinfectant.
9. Wash seat and outside of bowl with disinfectant and apply the paper band indicating sanitary cleaning.
10. Dust inside of door and window sill.
11. Scrub floor according to house procedures.
12. Replace bath rug if soiled.

E. Cleaning the closet

1. Dust shelf and racks checking on correct number hangers.
2. Scrub closet floor or, if carpeted, use vacuum cleaner.
3. Replace laundry bag.

F. Replacing guest supplies.

1. Hang number of fresh towels required for each room and place fresh bath mat.
2. Replace wrapped soap, sterilized drinking glasses, toilet tissue or other items supplied by the management.
3. Replace stationery and telephone pads.

G. Cleaning the floor

1. Vacuum the carpet
2. Clean carefully under furniture and in corners.

G. Techniques of Teaching

Materials should be presented in logical, well-organized, step-by-step manner; but each step must be taught.

The employment trainee cannot be expected to see or to learn omitted steps, but must be taught each step in sequence. A student who is limited in his ability to read and in vocabulary recognition, must be taught the meanings of unfamiliar words through definitions and repeated practice in use.

By demonstrating the "how" and emphasizing the "why" a student can, after many and varied experience, arrive at relationships that appear to exist in all his observations. Eventually, basic information should become a permanent part of each student's working knowledge in the form of a generalization.[6]

H. Work Experiences Recommended

Practice experiences in school's bathroom with necessary equipment.

Practice experiences:

(1) making up a bed
(2) use and care of vacuum cleaner
(3) general floor cleaning practices
(4) walls: cabinets and bathroom
(5) dusting
(6) use of a variety of cleaning agents
(7) safety precautions
(8) how to set a cart up to save time and energy
(9) setting-up cleaning schedule
(10) lifting and moving heavy objects effectively to reduce amount of work for the muscles
(11) emptying waste baskets

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[6] Adapted from Handbook: Homemaking Education, Minneapolis, Minnesota.

I. Sequence of Work Experiences on How to Set-Up a Room

Introduction

This set-up varies widely with the size and type of institution. A copy is usually framed and kept in the Aide's closet for reference.

Work to be Done

1. Write the definitions of the following words; if you are not sure of their meaning, look them up in a dictionary.

    solvents
    abrasives
    acid
    detergents
    cart
    alkalis
    bleaches
    polishes
    waxes
    valet
    dispenser
    stationery
    pests
    household dirt
    chute

2. Answer the study questions below:

    Give four ways in which time and energy may be saved in housekeeping.
    How may a cart aid in saving steps?
    What muscles should be used in performing various tasks?
    Suggest an efficient method for dusting.
    What value is the cleaning schedule?
    Who set up standards for cleaning?

3. References to be used in securing information on subject matter:

    Brigham, Grace H., Housekeeping for Hotels, Motels, Hospitals, Clubs, and Schools, Ahrens Publishing Company, Inc., New York.

    Peet, Louise J., Young Homemakers' Equipment Guide, Iowa State College Press.

    Lewis, Dora S., Housing and Home Management, The MacMillan Company, New York.

Standard Room Set-Up

This is a sample of the set-up in one of the large chain hotels.[7]

Bathroom:

Rug on floor
Bath mat placed over edge of tub on top of rubber mat
Soap: 3 cakes--one for tub, one for basin, one in cabinet
Towels: Single room--2 face, 2 bath, 3 face clothes
Double bed--3 face, 3 bath, 3 face clothe or 2 of each and 3 hand towels
Twin beds--4 face, 4 bath, 4 face cloths or 3 of each and 4 hand towels
Suite--4 hand, 4 bath, 4 face, 4 face cloths and 4 hand towels
Water glasses: 2 on lower shelf of cabinet or on open shelf under it
Tissue dispenser
Shoe cloth
Toilet paper: 1 in holder; ½ package in cabinet

Closet:

"Do not Disturb" card on room side of closet door
Clothes hangers--4 each of men's and ladies' (wooden), 4 extra metal hangers
Laundry bags--2 on shelf with lists attached
Valet Notice--on hook near drawer

Dresser:

On top-current entertainment notice, radio, lamps, ashtray and matches
Top drawer--Bible
Lower drawer--extra blankets: 1 for double bed, 2 single for twin beds

Desk:

Top--lamp, ashtray, matches
Drawer--Telegraph blanks, floor plan showing fire exits, disaster directions. Folder containing all house information in one side and stationery in the other--6 sheets of paper and 6 envelopes if only one kind; 4 of each if both men's and ladies' sizes, 2 of each kind of postals, 1 blotter, 1 ball point pen.

Night Table:

Top--phone, ashtray and matches, possibly notice about ordering breakfast at night
Shelf--Telephone directories

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[7] Brigham, Grace H., Housekeeping for Hotels, Motels, Hospitals, Clubs and Schools, Ahrens Publishing Company, Inc., New York.

General

Baggage racks--at foot of bed unless a part of multi-use piece of furniture. 1 for large bed and other in closet, 1 at foot of each twin bed.

Waste basket beside desk

Television so it is visible from both easy chair and bed

5-5

Procedure for Housekeeping Aide Trainee's Day Work[8]

No manual yet written can be followed implicitly in all institutions, but everywhere the aim is the same--to achieve cleanliness, comfort and quiet for all patrons. No method can be completely successful unless followed faithfully every day, and without systematic routine, it is easy to forget something which is seldom overlooked by the guest. Here is one "blueprint for housekeeping aide trainees" used in a large hotel.

Blueprint to Follow:

1. Give your number to the timekeeper.
2. Stamp it.
3. Go to the locker room.
4. Change into uniform.
5. Go to linen room; (set-up cart)
   (a) keys
   (b) supplies
   (c) any other special orders
6. Go to sections assigned you and be very quiet.
7. Take list of vacant rooms.
8. If a room seems unoccupied, look in bath, closet and dresser drawers for personal belongings before makking it vacant on your list.
9. Be sure to mark each room exactly as you find it as the front office depends on you for accurate information.
10. If you find anything unusual or out of order be sure to report it to the inspectress as she collects your vacancy list.
11. If it is an emergency, call the housekeeper's office at once.

Making Up a Room

1. Stock your cart with all supplies needed to avoid all unnecessary steps.
2. Wheel it to the room.
3. Park it close and parallel with the wall, halfway across the open door, to be easy for you to reach the things needed and to prevent anyone else from taking anything.
4. All other working equipment must be taken into the room with you.
5. Start with check outs in order to get them ready for sale as quickly as possible.
6. If institution is not air-conditioned the first thing to do is open the window to let the room air while you work.
7. If windy or stormy, open it as much as you can with safety and comfort.
8. Strip soiled linen from beds.
9. Be sure to shake soiled linen over the bed.

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[8] Ibid.

10. Place a bag on your cart, bringing back the set of clean linen with you.
11. While beds and blankets are airing, clean the bath and closet as you have been taught and set them up as instructed.
12. Before making beds, look around to see if anything has been left:
    (a) in closet
    (b) behind the bathroom door
    (c) in desk or dresser drawers
    (d) behind draperies
    (e) under beds
13. If you find something, notify the Lost and Found Department immediately, as there might be a long distance call about it.
14. Mark whatever you find with the room number, date, time and your name and take to the linen room the next time you go there. If it is not called for, you will receive whatever you found in 60 days or 90 days (according to local laws).
    (a) Make bed
15. Empty waste baskets and dresser drawer onto a newspaper to see if anything valuable was left there in error and also to prevent cut fingers from broken glass or razor blades.
16. Wipe out waste baskets with damp cloth.
17. When all trash is on the paper, roll it up and take it to the trash can on the service landing.
18. Extra glasses, soiled dishes and empty bottles are taken to the back landing also.

Making Up Occupied Rooms:

1. Unless immediate service is requested, make up occupies rooms when guest is out.
2. Here surface dusting is done.
3. Bath and bed linen changed.
4. Bedspreads, shower sheet, floor and tub mats are not changed unless soiled or wrinkled.
5. Dresser drawers are not opened, nor clothes in closet touched unless something has fallen or is left in an untidy way in the room, in which case it is hung up in the closet.
6. Guest's personal belongings must be handled with great care when dusting and if anything is accidentally broken it must be reported immediately so that the housekeeper can see if the owner is willing to have it replaced and where it may be purchased.
7. Do not touch written or type-written papers and if papers or magazines are on the floor, pick them up and put them on desk or table.
8. Only what is left in the waste basket can be thrown away.
9. Shake out any wrapped up towel to be sure no stockings or underwear are in it.
10. Do the work as guest requests if the only change is in routine but ask permission if it differs from your orders.
11. The inspectress will arrange things if there is a request for your service at a time when you are scheduled else-where.

12. When a man wants his room make up while he is there, another housekeeping aide will be asked to help you make it up quickly.
13. Leave door ajar.
14. When working with a lady in the room, the door may be closed if "Housekeeping Aide" sign is on door knob.
15. Any remarks about the hotel, good or bad, should be reported to the inspectress.

Making up Permanent Guests' Rooms:

This work is usually done at a regular hour. The care of such a room or apartment is more like that in a private home.

1. Beds and bath linen are changed daily unless otherwise instructed, but dusting and other cleaning is much like that in occupied rooms.
2. Vacuum man works at stated times and housekeeping aide does the general cleaning before or after he is through as desired.
3. Taking care of these guests' belongings is most important as they are often of great value.
4. Time schedules and any change from regular service routine should be listed in housekeeping aide's closet so relief aide will make no mistake.

Care of Vacant Rooms:

1. Dust these and flush toilets daily so they will be ready for occupancy when needed.
2. Do this when not able to get into occupied rooms and check a (d) for dusted on you work list.
3. You will be asked to do other work in this time not used for occupied rooms--help get a room out of or in order.

End-of-Day Chores:

1. When your rooms are finished, see that your linen closet is neat and the floor clean.
2. Tidy up your cart and list supplies needed for next day.
3. Lock in closet.
4. Change into your street clothes.
5. Put out the lights.
6. Take to the linen room your:
    - (a) key
    - (b) list of needed supplies
    - (c) lost and found articles
    - (d) reports of rooms to be made up
    - (e) repairs not yet made
7. Ask the timekeeper for your card and punch your time going out.

Procedure for Housekeeping Aide Trainee's Night Work[9]

The hours are 4 P.M. to midnight with one-half hour for supper at the time and place scheduled. This aide must be right on time in order to start at once where the day aides have left off.

1. Get a card from the time keeper and after punching it, go to the linen room for:
   - (a) key
   - (b) guest supplies (in aluminum basket for easy carrying from floor to floor)
   - (c) list make-ups or special orders
2. When in uniform, start taking vacancies.
3. The work is done in the same way as that of the day aide.
4. Check outs are done first so that all rooms will be rentable as quickly as possible.
5. You are assigned to no certain floors but will be sent where occupancy demands.
6. On a busy night, you may have to get a refill for your supply basket when going to supper.
7. Should the hall telephone ring, answer as quickly as possible to avoid disturbing guests and to save time of operator and linen room attendant, who may be trying to reach you.
8. Keep your eyes and ears open for any out-of-ordinary or suspicious actions.
9. Management depends on you to help in keeping out undersirables and so retain the good name of the hotel.
10. Before leaving any floor, see that linen closet is in order, lights out and door locked, as you may not be back there.
11. Change into street clothes, and return key, supply basket, and soiled apron to linen room, before checking out on timecard.
12. Be sure to list any room which you were unable to enter.

Aides' Night Service

Usually this is not common practice for all guest except in luxury houses, but may be customary for suites, where there are couch beds, or on request.

1. As it is not usually started till after 9 o'clock, there is time for taking vacancies, making up check-outs and attending to make-ups, first.
2. In rooms assigned for this service, knock on door quietly and if there is an answer, say "Night Aide, at what time shall I come back to tidy your room?" Note time on night service list and return as soon after that as you can. If they do not want this attention put "N" after room number.
3. When there is no answer, enter very quietly as the occupant may open the window for airing while you work.

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[9] Ibid

4. Empty ashtrays into tin box in supply basket, wash and dry them, empty waste basket, wipe out and return to proper place, use sweeper if needed before turning down beds.

    (To Remove Spreads)
    1. Fold neatly from head to foot.
    2. Fold again parallel with head and foot.
    3. Fold from edge to middle of bed, overlapping center about one-third.
    4. Fold remaining edge over this and fold again to size that will fit in drawer.
    5. Remove extra blanket from bottom drawer and put spread in its place.

(To Place Extra Blanket on Bed)
1. Put it across foot of bed with bindings parallel to foot.
2. Unfold from center.
3. Tuck one edge under at foot of bed.
4. Pull top edge about one-third of way to top of bed leaving extra length in two wide folds, with bound edge at top so it can be pulled up easily if desired.

5. In bathroom, wash and dry basin and tub, if used, and exchange soiled water glasses, towels and face cloths for clean ones.

6. Leave soap unless too small for use and exchange floor or tub mats only if wet or soiled.
7. Wipe any wet spots from floor and flush toilet to check.
8. Close window, adjust blind or shade and draperies, put out all
7 lights except one on night stand, close and lock door.
9. Do not forget to report anything out of order, such as dripping faucet, burned-out light bulb, etc.

SEQUENCE OF WORK EXPERIENCES ON HOW TO MAKE A BED "ONCE AROUND"[10] (Demonstration)

The "One Trip Around" of bed making is widely used because of the fewer steps necessary and the resulting lessened fatigue. Where given a fair trial it has proved so satisfactory that no one wants to go back to the old way.

1. Place pad on bed equally distant from head, foot and two sides.

2. About a foot away from the center of the bed, grasp the first sheet with both hands, and open with a sharp flip right side up, and with small hem at top to bed. From center of bed, spread sheet to the headboard and tuck under mattress Miter corner at the head and tuck that under. Move to lower half of bed tucking first sheet under mattress and miter corner at foot of bed. Tuck at foot of bed.

3. Open and place second sheet on in same manner as the first sheet. Second sheet is to rest against headboard ready to turn over blanket if a third sheet is not used.

4. Spread blanket on to within 8" of the headboard and turn second sheet over for protection unless another one is customary.

5. If third sheet is used to cover blanket, open it in the same way, right side up with wide hem at the top. Fold this over top of blanket and bring second sheet up over it halfway across the bed.

6. Miter corners and tuck second sheet, blanket and third sheet at foot of bed.

7. Move to other side starting at the head of bed. Lay back second sheet, blanket and third sheet. Tuck in first sheet under mattress. Miter corner and continue tucking in tightly to the foot. Second sheet, blanket and third sheet are not tucked in under sides but are left hanging or folded under lightly, so that they will not pull out under first sheet when the guest gets into bed.

8. Bed is now ready for putting pillow in place and spread on.

9. Arrange spread over pillow, and the job is done, without those many trips around the bed which are so tiring.

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[10] Brigham, Grace H., Housekeeping, New York: Ahrens Publishing Company, Inc., 1962.

CRITERIA FOR JUDGING TRAINEE READINESS FOR EMPLOYMENT

The criteria set-up should come, for the most part, from basic content studied. Means of obtaining evidences should show flexibility and a vast source of variety to insure a reasonable amount of satisfaction on the part of trainees and teachers.

Evidences of Course in Training

I. Personal Qualities
A. Observes standards set-up in class on personal appearance.
B. Incorporates friendliness, courtesy, and tact when working with others.
C. Maintains highly acceptable attitudes:
1. Toward work
2. Spirit of calmness
3. Relationship with others
D. Understands responsibilities expected.
E. Observes effective personality traits:
1. Cleanliness
2. Honesty
3. Orderliness
4. Mental alertness

II. Experiences Showing Skill, Knowledge, and Understanding
A. Shows ability to make-up at least 15-18 hotel or motel rooms per day.
B. Conforms to:
1. Directions
2. Instructions
3. Commands
4. Rules
5. Regulations
C. Conserves energy and time effectively
D. Demonstrates techniques in getting rooms in order, sanitary, and clean
E. Observes all safety precautions
F. Shows ability to follow through rigid schedules of activities.

a. Example: Makes up bed by given procedures accepted in class or set-up by housekeeper in various situations.

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10. A related-subjects class is one in which it is intended to broaden the vocational knowledge, understanding, morale, and judgment of the trainee. Background courses, such as business mathematics, speech, business letter-writing, mechanical drawing, and psychology are examples of related subjects classes.

11. A schedule of processes is a form of analysis of an occupation or a portion of one. It is an outline listing the different job operations which must be performed by a student-learner as he learns the occupation. In addition to the job operations, the schedule of processes contains a listing of related material to be studied.

12. State plan is the official contract between a State Board for Vocational Education and the United States Office of Education. It outlines the standards under which any service or phase of the vocational education program within the state is to operate if state and federal vocational education funds are to be used in reimbursing a local board of education for a part of its costs of conducting the program.

13. Student-learners are those students enrolled in any type of cooperative work experience program.

14. A training memorandum is a written or printed form which explains all the essential features of the cooperative work experience program and outlines the duties and responsibilities of each party concerned. It might be called a written agreement for the cooperative work experience program developed cooperatively by the school, training agency, student, and parents.

15. A training station is a part-time job in any establishment which employs student learners for the purpose of training them and cooperates with the school in the cooperative work experience program.

16. A vocational class period is one that involves a discussion or presentation for the purpose of increasing the skill; imparting technical knowledge and occupational information; or discussing judgment of workers in that specific occupation. Instructional material is directly related to, and based upon, what the worker does on the job.

17. Vocational education is systematic instruction or training designed to develop skills, attitudes, interests, and a knowledge of facts or information pertaining to a vocation, occupation, or profession.

18. A work permit is a certificate, usually issued by the local superintendent of schools which presents proof of the age of students or others who desire employment.

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